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The

ROYAL CANADIAN DENTAL CORPS

Quarterly

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THE RCDC QUARTERLY

Published by authority of Brigadier KM Baird, Director
General of Dental Services for the Canadian Forces

Editorial Board: Colonel AC Leman
Lt Col DH Hillier
Lt Col SG Bagnall

SUBSCRIPTION RATES

The RCDC Quarterly may be subscribed for at \$4.00 per
year by writing to:

Director General of Dental Services
for the Canadian Forces,
Army Headquarters,
OTTAWA, Ontario.

EDITORIAL

With this edition the RCDC Quarterly enters its fifth year of publication and celebrates the event with a redesigned format. Our aim has been to produce a magazine which is more attractive, compact and easier to read, while at the same time avoiding a significant increase in the cost of its production. The changes effected represent a compromise between our lofty aims and our lowly budget. The desire to employ a heavier stock was made financially possible by the simple expedient of using both sides of the paper. The difficulty encountered in keeping previous issues of the Quarterly open at a given page, unless the reader employed both hands to the task, has been resolved by the use of staples rather than the former type of binding. The new size was developed not only to improve the appearance and ease of reading but also to facilitate storage. Although it has been necessary to restrict the cover to two colours, the distinctive graphic treatment remains largely unaltered, forming a link with our previous volumes. It is very likely that certain other modifications may be possible and comments and suggestions are invited.

The new look in no way alters either the purpose or the policy governing this publication. As in the past, the Quarterly will feature articles, news items and photographs of particular concern to members and friends of the Corps. Only through your interest and activity in submitting pictures and well considered, thoughtfully composed manuscripts can we continue to produce a timely and worthwhile magazine which will reflect favourably on the Royal Canadian Dental Corps.

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Cover Photograph

Shown after the final draw are the participants of the Second Annual RCDC Bonspiel held at Camp Borden, Ontario, during the weekend of 21-23 Feb. 64. See page 14 for story and additional photographs.

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ORAL EXFOLIATIVE CYTOLOGY:
A VALUABLE AID IN CANCER DIAGNOSIS

Lt Col WR Thompson, CD, DDS

The relative ease of clinical examination should facilitate the early detection of oral cancer and result in high cure-rates (1). Unfortunately the majority of oral cancers are not diagnosed soon enough for successful treatment to be accomplished. Why does this delay occur?

The early cancerous lesion is asymptomatic and frequently is casually dismissed as one of the more common benign conditions which it resembles so closely. Even in those instances where suspicion is aroused, there is a tendency on the part of both the patient and practitioner to adopt an equally dangerous attitude of "watch and wait". Such a decision arises from a reluctance of the patient to submit to any type of surgery and a desire on the part of the practitioner to avoid the risk of profuse haemorrhage or the involvement of nerve, vascular and duct tracts which sometimes accompany excisions for biopsy. For these reasons, scheduling every oral abnormality for biopsy is generally unacceptable. At the same time, it is important to separate the innocent ones from those that are dangerous or potentially dangerous as early as possible. Cytology, the microscopic study of oral detached cells, is a simple and painless procedure to determine whether or not an oral lesion is cancerous.

Cancer cytology is based on the fact that changes which are apparent microscopically in tissue sections taken from malignant areas are the product of abnormal changes in the individual malignant cells within the lesion (2). These cells may become detached by natural exfoliation or by physical procedures. The cells can then be recognized microscopically as abnormal in well prepared slide smears. These findings are not new for it has been known for more than one hundred years that tumour cells exhibit characteristically abnormal cytology; but it was not until 1943 that Papanicolaou and Traut (3) demonstrated the usefulness and reliability of a cytological smear technique for the early detection of cancer of the uterus. The procedure was perfected and reliability established over the following ten years. By 1954 cell cytology had been applied to diagnose cancer in the urinary and genital systems, the respiratory and digestive systems, the pleural, peritoneal and pericardial exudates, the breast and the circulating blood (4). For some reason, possibly because it was not considered necessary, the smear technique was not used for the diagnosis of oral cancer until about 1951 (5), and only since 1958 has the procedure been tested and reported in detail.

The need for an early diagnosis of cancerous lesions in this location is obvious. The five-year-cure rate for oral malignancies is poorer than that for uterine cancer in women (6), and this fact is primarily due to the earlier detection of uterine cancer through

the wide application of the cytological smear technique. Intra-oral malignancies currently constitute over 5 per cent of the total recorded and, of particular importance in a military practice, the figure is nearly 10 per cent in men (7). Although the smear technique is applicable only to surface malignancies, this squamous cell type constitutes 95 per cent of the oral total. The size of a lesion is not an accurate guide to its seriousness but the smaller a primary lesion, the more effectively it can be encompassed by treatment. By the time the lesion exhibits the clinical signs of malignancy, such as chronicity, induration, attachment, ulceration and enlargements of glands in the area, an intra-oral carcinoma is usually larger than 2cm, and the probability for a five year survival of the patient is less than 40 per cent (8).

The smear technique is not intended to supplant but only to supplement biopsy, which remains the diagnostic procedure of choice and which must always be used to provide the final diagnosis. The smear technique serves merely as a screening device.

Indications

The specific indications for the smear technique are:

1. to provide a quick, simple and accurate procedure to diagnose lesions which might otherwise be dismissed casually;
2. to eliminate the dangers inherent in a "watch and wait" attitude toward doubtful lesions;
3. to anticipate initial and often unfounded apprehension in the patient;
4. to prevent discomfort;
5. to obtain samples of various areas of diffuse hyperkeratotic lesions, in which carcinoma might be missed through failure to perform numerous biopsies; and
6. to verify the successful treatment of oral malignancies particularly following radiotherapy, where biopsy could produce infection or delay healing.

The high degree of correlation between the diagnosis made from a biopsy and a cytological smear has been demonstrated in clinical and experimental studies, each method being about 95 per cent accurate (9-11). A most extensive study of oral cytology undertaken by the Veterans Administration Hospitals in the United States (12) not only confirms this correlation but also indicates that 20 per cent of the oral malignancies diagnosed by the smear technique and later confirmed by biopsy were completely unsuspected at the time of examination and had not been recommended for biopsy. The choice, therefore, is not biopsy or cytology but cytology in preference to nothing (13).

Technique

Many of the techniques which have been developed recently (7,14,17) vary mainly in the method of fixation of the smear. Probably the simplest and most standardized procedure utilizes a prepacked cytology kit which includes all the materials required not only to take and prepare the smear but also to package it safely for mailing. The kit consists of:

1. a cardboard mailing tube;
2. a set of history forms;
3. a plastic tube for slide retention during mailing;
4. two slides with frosted ends;
5. two plastic containers of fixative;
6. a wooden scraper;
7. a mailing label; and
8. a return label.

The directions for use are:

1. Fill in all information requested on the forms provided;
2. Print the patient's name and the date in pencil on the frosted ends of both slides;
3. Prepare the fixative in one plastic vial for immediate use;
4. Do not dry the surface of the lesion - moisture is essential;
5. If the lesion is covered with debris, wipe the area with wet gauze;
6. If the lesion is heavily keratinized, reduce with a diamond wheel until a pink surface is observed; bleeding is not desired but small amounts will not interfere;
7. Dip the wooden scraper in water for a few seconds;
8. Scrape the lesion firmly, several times in the same direction, with the wet end of the scraper;
9. Spread the material from the scraper thinly and evenly on the clear end of the frosted side of the slide;
10. Cover the entire smear immediately with the fixative contained in one vial;
11. Repeat procedures 9 and 10 for the second slide of the same lesion, using the second vial of fixative;

12. Air-dry the slides for one hour; avoid touching the smear or contaminating it with dust;
13. Place each slide in the separated slots of the plastic tube;
14. Wrap the completed history forms around plastic tube;
15. Insert the plastic tube and the forms, including the return label, in the cardboard mailing tube; and
16. Affix the mailing label.

On completion of the procedure, the mailing tube is sent to a pathology laboratory in which the staff have had special training to undertake oral cytology studies.

The use of a diamond wheel to reduce the thick keratotic surfaces overcomes previous observations (5,18) that the technique is not suitable for this type of lesion. If there are deep cracks or fissures, a better smear of the deeper areas may be obtained by the use of a small curette instead of the wooden scraper.

Significance of Reports

Some laboratories will classify smears only as negative, suspicious or positive for malignant cells. Others subdivide the middle category into: (a) typical but no evidence of malignancy; (b) suggestive; and (c) strongly suggestive of malignancy. The important consideration to the practitioner, however, is whether or not the report is negative: any report other than negative indicates that a biopsy should be undertaken. On the other hand, a negative finding means only that there are no cells demonstrating malignancy in the samples taken and, if the lesion persists, additional smears should be taken at periodic intervals.

Conclusion

Although the prevalence of oral malignancies is relatively small when compared with most diseases, more are being reported every year and a very high proportion of these result in death or radical disfigurement within five years. The extent of the surgical intervention required in many instances and the terminal nature of the treatment program in others underlines the importance of the earliest possible diagnosis. Most oral abnormalities are benign but some which are benign-appearing are actually early manifestations of cancer. If the diagnosis were confirmed at this stage and treatment instituted, many more cures could be effected. The smear technique of exfoliative cytology provides the dentist with a quick, painless and simple procedure for the early examination of oral abnormalities and, when used and interpreted correctly, it is a valuable addition to the diagnostic armamentarium (6,19).

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Editor's Note:

Provision of kits and laboratory service for oral cytological smears in the RCDC is now being arranged. Notification to all concerned will be made as soon as these are available.

THE UNITED STATES ARMY INSTITUTE OF DENTAL RESEARCH
WALTER REED ARMY MEDICAL CENTER
WASHINGTON D.C.

Major DH Skinner, CD, DDS

From its modest beginning in 1905, Walter Reed Army Medical Center has emerged to become one of the world's foremost medical establishments. "Walter Reed", as the center is affectionately known, is not only one of the most famous military hospitals but also comprises the Walter Reed Army Institute of Research, the Armed Forces Institute of Pathology, the Army Prosthetics Research Laboratory, the Army Central Dental Laboratory, the Army Medical Services Historical and Combat Development units, as well as the Medical Research Unit in Malaya. To all of these units, the center administers and supplies logistical support.

Many significant contributions which have brought better health to military personnel and civilians alike have been made by staff members of this internationally recognized institution. The achievements of Major Walter Reed and his associates which led to the control of yellow fever were perhaps the beginning of modern army medical research in the United States. Other early milestones were the adaptation of X-ray to military medical uses, the development of a typhoid immunizing agent and a specific therapy for amebiasis, and the discovery that rice grain husks added to the Oriental diet prevented beri-beri. The purification of drinking water by chlorine was a development of this center. Equine encephalomyelitis, a serious disease of horses and a threat to man, was overcome by a vaccine developed in the Veterinarian department of the center. The first researcher to isolate strains of lactobaccilli from carious teeth and to emphasize their importance in the formation of dental caries was Major Fernando E. Rodriguez of the Army Dental School.

One of the more recent contributions to science was the development of a more potent typhoid vaccine, which was largely responsible for the fact that not a single American soldier died of typhoid fever in the Second World War. In 1949 they discovered chloramphenicol which is effective against typhus and typhoid fever. In 1950 medical research teams trained at "Walter Reed" went to Korea to institute improved vascular surgery for the replacement of torn arteries. Psychiatric research into battle fatigue and allied conditions was initiated during the conflict by teams from "Walter Reed"; even the "Walter Reed" artificial kidney found its way to the Korean battlefields. These are only a few of the many advances and developments which have come from continuing research at the center.

The United States Army Institute of Dental Research(USAIDR)

The USAIDR is a very large and important part of the "Walter Reed" complex and is attached to the center for administration and logistical support.

The aims of the Institute are:

1. to conduct research into the cause and control of oral disease;
2. to improve and develop accepted techniques for rapid and effective treatment, including maxillo-facial injuries;
3. to pursue research in the field of Dental Materials; and
4. to implement professional training programs for the maintenance of a high professional standing.

In accord with the last aim, the Institute has run two courses a year in Advanced Dentistry for which a Canadian and usually one or two other foreign students were accepted. The purpose of the course was to train candidates in advanced dentistry and the curriculum included restorative, preventive and prosthetic dentistry, and oral surgery, diagnosis and medicine. Prior to commencing such training in the dental specialties, an extensive review of the basic medical sciences was conducted. The final course of this type was run from January to May 1963.

The United States Army Dental Corps has recently signed a contract with the Georgetown University School of Dentistry which permits their officers to earn a Masters Degree through an affiliated program, and hence a course which differs slightly in context, has been developed. Under its new name, "Advanced Theory and Science of Dental Practice", the course has been extended to 44 weeks and on completion, the student is granted credit towards a Masters Degree. Eighteen candidates were accepted for the first class and their time is divided between the Army Institute of Dental Research and the School of Dentistry at Georgetown University.

Organization of USAIDR

The director of USAIDR is responsible to the Surgeon General for the planning and operation of dental research, and for conducting development projects as assigned to him by the office of the Surgeon General. He carries out his mission through four separate departments.

1. Department of Oral Biology

Equipped with staff and laboratory facilities, the Department of Oral Biology conducts research into the biology and control of oral diseases and provides consultation in these subjects. Instruction is given in the sciences related to human biology, including micro-biology, physiology and biochemistry. Many reports of research projects have emanated from this department.

2. Department of Dental and Oral Pathology

Reflecting the excellent consultation service of the Department of Dental and Oral Pathology, specimens, biopsied tissues and slides are sent to it from civilian as well as military sources from all parts of the world. This service is provided by highly trained dental officers who have undertaken post graduate studies in dental pathology. This specialty has gained a respected place in the United States Army Dental Corps which is largely due to the untiring efforts of their chief, Major General Joseph L. Bernier. Experimental pathology as related to oral tissues and the jaws, instruction in dental and oral pathology and the preparation of information for publication are also the responsibility of this department.

3. Department of Preventive Dentistry

One of the main activities of the Department of Preventive Dentistry is to engage in research to develop methods for the prevention and control of oral disease. Another facet of their operation is to help in the development and design of preventive dentistry programs for the various Army Commands. The department also provides training in preventive dentistry and prepares information and reports for publication and dissemination.

4. Department of Dental Materials

Laboratory investigation and evaluation of the variables on the physical and chemical properties of dental materials is the responsibility of the Department of Dental Materials. Techniques and equipment to provide rapid and effective dental treatment are also investigated. This department provides reports on and supervises training in all types of dental materials. A dental materials research team, the first of its kind within the US Army Dental Corps has recently been established. This team, although not directly under the control of USAIDR, will be housed within the confines of the Central Dental Laboratory which, as was mentioned earlier, is a part of the "Walter Reed" complex. Research of problems in materials and technics, will be undertaken and the group will strive to keep pace with advances in other biological and physical sciences. It is expected that research teams of this nature eventually will be placed in each Army Command.

Dental Research

Dental Research in general is conducted under two basic tasks, Combat Dentistry and Army Medical Basic Research in Life Studies. These basic tasks are divided into the following sub-tasks:

1. effects of high speed instruments on hard and soft tissues of the mouth;
2. clinical practice;
3. dental caries;
4. effects of irradiation on oral tissues;
5. epidemiology of oral tissues;
6. experimental pathology as related to oral tissues and the jaws;
7. natural history of neoplastic and non neoplastic lesions of the oral cavity and jaws;
8. periodontal disease; and
9. dental materials.

The Walter Reed Army Medical Center and particularly the United States Army Institute of Dental Research can take pride in their past achievements and are more than justified in anticipating even greater accomplishments in the future. The Royal Canadian Dental Corps takes pride in its close association with this outstanding organization.

Editor's Note:

Major Skinner's article is particularly timely in view of current plans which involve sending two of our officers to the United States Army Institute of Dental Research at Washington D.C. Major PS Sills, currently on staff at the RCDC School is expected to commence a two-year exchange posting at this Institute in August of this year. He will be replaced at Camp Borden for a like period by Major DH Newell, Dental Corps, United States Army. A vacancy is also being held for an RCDC officer to attend the 44 week course in Advanced Theory and Science of Dental Practice which begins in September.

AGED SOLUTIONS OF STANNOUS FLUORIDE

Lt Col DH Hillier, CD, DDS, MPH

Muhler and his associates at Indiana University have been responsible for much of the research with stannous fluoride and over a period of 16 years have presented a formidable amount of data in support of their conclusions that this compound is more effective than sodium fluoride as an anticariogenic agent. Comparative studies by other groups have failed to demonstrate significant superiority for either material but the value of stannous fluoride for topical application to the teeth of children and young adults is now accepted by a large number of the dental profession.

Observations made during the early studies of this material led to the conclusion that solutions of stannous fluoride are unstable, and Muhler was prompted to offer the proposal that solutions of stannous fluoride must be mixed immediately prior to their use and must contain no colouring or flavouring additives (1). These instructions have been followed closely by most clinical workers, and continue to be supported by most authorities (2-3). Shannon and his co-workers at the USAF School of Aerospace Medicine, however, have conducted laboratory studies which provide evidence that neither age nor the presence of certain additives have any significant effect on the ability of stannous fluoride to protect tooth enamel against decalcification (4-8). These findings form a partial corroboration of Morch et al (9-10) who reported that aging appeared to increase the ability of solutions to reduce acid permeability of tooth enamel.

Although the literature contains no confirmation based on clinical studies, these observations are felt to be sufficiently well documented and of such potential practical importance to warrant consideration of their clinical application. The requirement to make a fresh solution has probably never been a major problem or deterrent in the use of stannous fluoride for topical application, nor is it considered difficult for patients to accept the unpleasant taste. However, the cumulative benefits of applying stannous fluoride serially in different forms has been reported (6) and the development of such additional methods of application has been hampered by the unqualified warning that solutions must be freshly prepared. For example, a prophylaxis paste was developed by Segreto et al (11) which contained stannous fluoride as a dry ingredient. Shannon (7), in reviewing the literature relative to this type of paste, cites confirmation of a limited and unpublished study in which the RCDC found that the paste was not acceptable to the patient because of the taste and dental officers questioned its effectiveness as a cleansing agent. Muhler has recently concluded that stannous fluoride is more effective in aqueous solution than is the solid form as a component of a prophylaxis paste (12).

The findings of Shannon and his co-workers have been applied in a practical way by the US Air Force which now issues stannous fluoride to their clinics throughout the world as a stock solution which is made by combining equal parts of a 40 per cent aqueous

solution of stannous fluoride and glycerine. A small amount of peppermint-anise oil mixture is added for flavour (7). This solution is recommended for topical application when diluted with equal parts of distilled water and also, when mixed with the abrasive of the operator's choice, as an effective and acceptable prophylaxis paste. As a further demonstration of the variety of uses envisaged for this solution, its effectiveness and acceptability as a mouthwash is now under study. When used for this latter purpose, the concentration of stannous fluoride in the diluted solution is less than that present in commercial toothpastes.

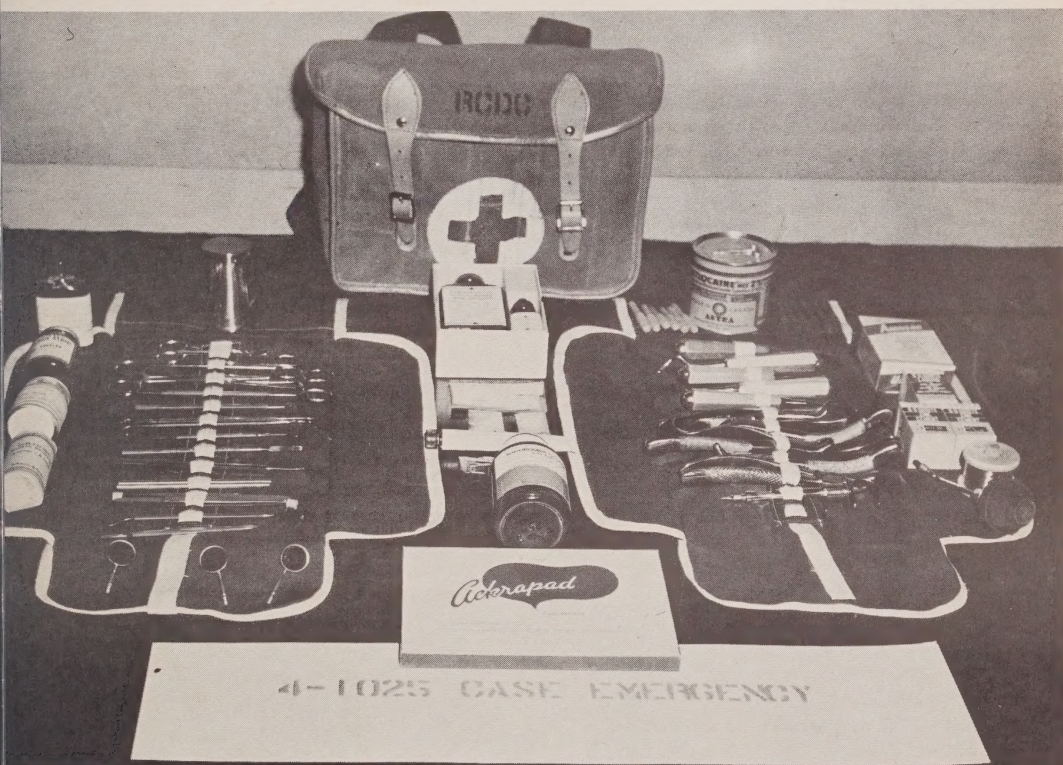
The Royal Canadian Dental Corps has followed these reports with interest and is considering the adoption of a policy similar to that of the US Air Force. Although the findings on which the policy is based have not been fully confirmed, responsible authorities have never suggested that harmful effects might accrue from a failure to abide by the precautions against aged solutions. It appears, therefore, that no useful purpose is to be served by a delay in adopting the more flexible and potentially more effective method to dispense and utilize stannous fluoride. The procurement of supplies of a suitable stock solution is currently under investigation and it is intended that issue will be made to clinics in the near future.

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NEW EMERGENCY KIT APPROVED FOR THE CORPS

The RCDC will soon take into use a new Emergency Case to replace the current model which was designed during the Second World War. Although it has served well since that time, the "L" Kit, as it is still referred to by some of the older members of the Corps, could not be procured quickly and was in need of modification to reduce the cost, size, and weight and to increase versatility and ease of handling.



All these requirements have been met in the new version which is an adaptation of the standard medical haversack. Simply by reducing the number of compartments to three, the medical haversack forms a carry-all for both instruments and supplies. The only components of the kit which require a special order are two cloth instrument holders which, when filled, fit neatly into one compartment. All the supplies listed at Annex "A" to Part 7 of the Manual of Dental Services can be packed easily into the other two compartments.

SECOND ANNUAL RCDC BONSPIEL

Capt CA Casterton, CD

The largest congregation of RCDC(R) personnel ever assembled in peacetime gathered at Camp Borden during the week-end of 21-23 Feb 64 for the Second Annual RCDC Curling Bonspiel. Twenty-four rinks competed for the Wansbrough and the RCDC(R) Trophies, the latter of which was donated by the officers of the RCDC(R) and presented for competition for the first time this year.

Seven of the ten RCDC Regular Force units supplied entries, with rinks from Edmonton, Winnipeg, Churchill, Trenton, Camp Borden, Ottawa, Camp Petawawa and Metz, France. The RCDC Militia was represented again this year by No 55 Dental Unit from London, Ontario.

Competition was keen from the start, with many upsets occurring in the early rounds. By Saturday afternoon it was obvious that the "darkhorses" had gained strength in the stretch and that the championship was to change hands. Col Kearney's Edmonton rink finished strongly to accumulate the high aggregate points in their draw, "nosing-out" Maj Frank Charman's rink from Metz by a narrow margin. By the final draw only two rinks had a chance to overtake the Edmonton entry, Maj Bill Carter's team of "on-course" officers and Capt Chas Casterton's rink from the School. Maj Carter's decisive win over the School foursome provided enough points not only to win their draw but also to edge out Col Kearney's rink and take the Wansbrough Trophy by a slim margin.

Fast developing into a highly popular and most enjoyable Corps week-end, the success of this year's bonspiel is largely attributable to the fellowship and esprit-de-corps of the participants and their 40-odd supporters. The number of rinks participating was double that of last year and a very small increase next year could mean that more than half the Corps would be in Camp Borden for the week-end.

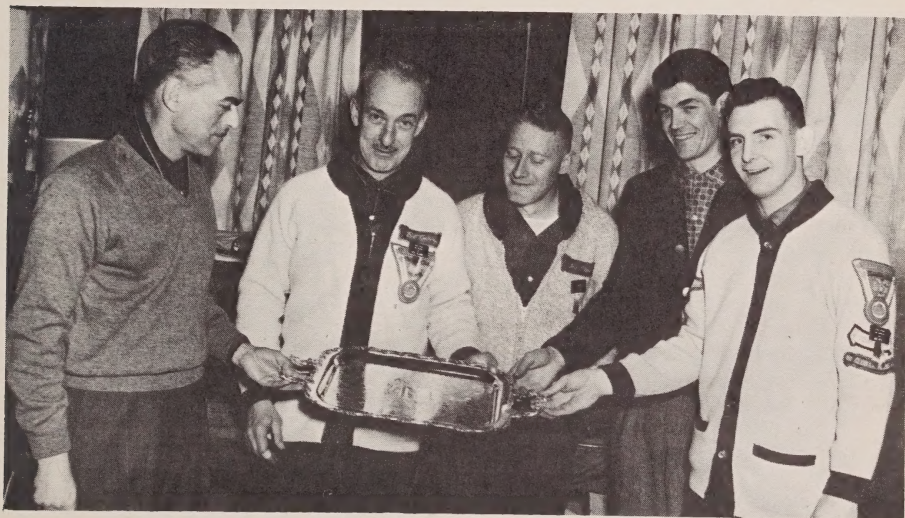
The initiative and ingenuity of those responsible for the entries from Metz, Edmonton, Shilo, Churchill and Winnipeg, added immeasurably to the success of the 'spiel. It was obvious that the calibre of curling had improved and special mention must be made of the distinctive attire of the two rinks from Trenton and of Maj Jim Wright's "beatles" from Clinton.

A very enjoyable buffet supper was served in the Curling Club Saturday evening, followed by the final draw of the bonspiel and the presentation of prizes.

HIGH AGGREGATE WINNERS AND RUNNERS-UP
RECEIVE CURLING TROPHIES AT RCDC BONSPIEL



Brigadier EM Wansbrough presents his trophy to the winning rink composed of Maj Carter, skip; Maj Andrews, lead; Maj Sivell, vice-skip; and Maj Hinch, second.



Receiving the RCDC(R) trophy from Brigadier KM Baird are the runners-up, Col Kearney, skip; Sgt Palmer, lead; Capt Mason, second; and Cpl Neill, vice-skip.

SECOND PRIZES WON BY RINKS



Colonel Covey with the winners of second prize in the first draw: Maj Charman, skip; Sgt Wood, vice-skip; Lt Col Craigie, lead; and Capt Meisner, second.

RINKS FROM ONTARIO
AWARDED THIRD PRIZES

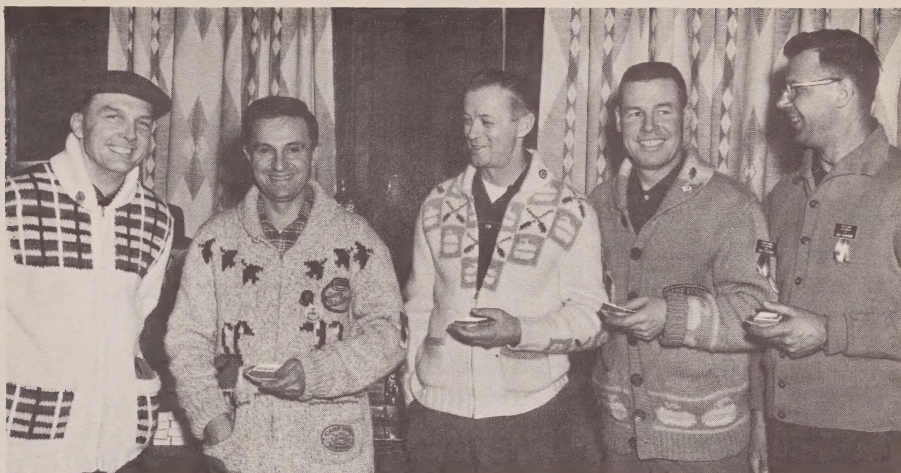
The entry from RCAF Stn Uplands are shown with their prizes for winning third prize in the first draw: Capt Travis, skip; Sgt Jerome, second; WO2 Therrien, lead; and Maj Lauziere, vice-skip.



This well dressed group, last year's high aggregate winners from No 1 Dent Eqpt Dep, took third prize in the second draw: Ssgt Davison, skip; WO1 Fisk, vice-skip; Lt Bergland, second; and Maj Fletcher, lead.



FROM METZ AND CAMP SHILO



The rink from Camp Shilo who won second prize in the second draw are shown with Colonel Covey: Maj Bisaillon, skip; Maj Fafard, vice-skip; Sgt Playford, second; and Sgt Demedash, lead.



DIRECTORATE SWEEPS CONSOLATION EVENT

The consolation prize in the first draw went to Brig Baird, skip; Maj Brusso, vice-skip; Lt Col Bagnall, second; and Col Miller, lead.



This "toothsome" group took the consolation prize in the second draw: Lt Col Evans, skip; Maj Donely, vice-skip; Maj Kettyls, second; and Lt Col Hillier, lead.

WELCOME TO THE CORPS

A cordial welcome is extended to those personnel who have recently joined the Corps and are at the following locations:

Pte	AM	Burns	-	25 COD Longue Pointe
Pte	SD	Delnick	-	Camp Gagetown
Pte	CW	Deveaux	-	HMCS Stadacona
Pte	PE	Harkin	-	Camp Gagetown
Pte	WPC	Harmer	-	Camp Borden
Pte	WEB	Liddle	-	RCAF Stn Uplands
Pte	AH	Peck	-	Griesbach Bks
Cpl	kG	Shergold	-	Griesbach Bks
Pte	DS	Smith	-	Camp Borden
Pte	PA	Timmers	-	Camp Petawawa
Pte	WE	Tweed	-	No 7 PD London
Pte	J	Van Hemert	-	Griesbach Bks
Pte	JM	White	-	NDHQ, Ottawa
LAW	JH	McDonald	-	RCAF Stn Chatham
Mrs	J	Duchesneau	-	3 Det RCAMC, Quebec City
Miss	JL	Blumes	-	HQ Man Area, Winnipeg

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

PROMOTIONS

In addition to those noted in the General News section, the following members of the Corps are congratulated on their recent promotions:

Capt	JLM	Masse	-	to Major
WO1	AM	Gareau	-	to Capt
WO2	HC	Bilbey	-	to WO1 (TSM)
Sgt	RG	Hopkins	-	to Ssgt
Sgt	CC	Jewson	-	to Ssgt
Sgt	KJ	Smallshaw	-	to Ssgt
Cpl	A	Schuh	-	to Sgt
Pte	RS	Black	-	to Cpl
Pte	RT	Buncombe	-	to Cpl
Pte	DW	Griffiths	-	to Cpl
Pte	LI	MacLean	-	to Cpl
Pte	H	McRae	-	to Cpl

RETIREMENTS AND RELEASES

Best wishes for the future are extended to the following personnel who have recently returned to civilian life:

Maj	CGB	Grant	Capt	JWR	Harrison
WO2	AE	Pritchard	Sgt	WK	Drawe
Pte	HL	Boring	Pte	DF	Ife
LAW	ML	Behie	LAW	JA	Keryluk
Miss	D	Bonneau	Miss	A	Greenberg

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POSTINGS

The following personnel have been posted to the locations as shown:

Capt	PAA	Dailyde	-	CBU(UNEF)
Capt	L	Dombowsky	-	RCAF Station, Chatham
Capt	JML	Rocheport	-	Dental Det. Cyprus
Sgt	A	Bramble	-	CJATC, Rivers
Sgt	LG	Brown	-	Camp Gagetown
Cpl	WE	Bussell	-	RCAF Station, Winnipeg
Cpl	N	Cable	-	RCAF Station, Winnipeg
Sgt	JP	Carrier	-	1 Dent Eqpt Depot
Sgt	WF	Chase	-	CBU(UNEF)
Sgt	MD	Crockett	-	Dental Det. Cyprus
Cpl	JF	Giroux	-	Dental Det. Cyprus
Cpl	DW	Griffiths	-	Calgary Garrison
Cpl	DL	Kerr	-	Workpoint Bks, Victoria
Cpl	JP	Lambert	-	4 Fd Dental Unit
Sgt	EJ	Lansey	-	Camp Borden
Cpl	LI	MacLean	-	HQ BC Area, Vancouver
Sgt	FJ	Reid	-	CBU(UNEF)
Sgt	AF	Semple	-	DGDS, Ottawa
Sgt	G	Shechosky	-	Fort Osborne Bks, Winnipeg
Sgt	EH	Sprathoff	-	RCAF Stn Downsview
Cpl	WL	Wylie	-	CBU(UNEF)

TRAINING

Corps personnel have recently undertaken the following training:

US Naval Dental School - Bethesda, Maryland

Capt	PP	Morin	- Complete Dentures	- 10-14 Feb 64
Capt	BG	Johnston	- Crown and Bridge	- 6-10 Apr 64

University of Michigan - Ann Arbor, Michigan

Maj	JMA	Donely	- Crown and Bridge	- 2-13 Mar 64
Lt Col	WW	Anglin	- Oral Surgery	- 30 Mar-10 Apr 64

University of Toronto

Lt Col	RE	Brown	- Endodontics	- 19-21 Feb 64
Lt Col	GE	Windsor	- Occlusal Correction	- 4-8 May 64

RCDC School - Camp Borden, Ontario

Officers Casualty Care Course	- 17 Feb-21 Feb 64
Officers Clinical Course	- 24 Feb-20 Mar 64

Maj	AG	Andrews	Maj	HE	McKenna
Maj	WH	Carter	Maj	CJ	Sivell
Maj	AT	Hinch	Maj	LE	Kelly
Capt	KC	Chisholm	RCDC(M) (Casualty Care only)		

Dental Assistant Group 1 Course - 6 Apr-8 May 64

Cpl	HW	Anderson	LAW	MRJM	Crevier
Pte	CSB	Heather	LAW	SJ	Kirley
Pte	ZWJ	Mitrikas	LAW	JF	MacDonald
Cpl	TA	Neill	LAW	LE	Mattatall
LAW	JN	Boucher	LAW	CJ	Olson

1 Dental Equipment Depot - Camp Petawawa, Ontario

Dental Equipment Technician Gp 3 Conversion Course-2-20 Mar 64

WO1	WD	Morris	Ssgt	JW	Hutchinson
WO2	EC	Carpenter	Ssgt	AH	Nixon
Ssgt	MF	Conkey	Ssgt	RG	Stewart
Ssgt	EMB	Everett	Ssgt	SD	Posyluzny

Command Jr NCO Courses

A/Cpl	JB	Arsenault	Pte	NR	Highfield
A/Cpl	RS	Black	A/Cpl	WD	Horne
Pte	JAL	Boulianne	A/Cpl	LI	MacLean
A/Cpl	RJ	Forward	A/Cpl	H	McRae
A/Cpl	RA	Garnhum	Pte	JA	Strasdin
Pte	RL	Geddes	Pte	RJ	Taillon
A/Cpl	DW	Griffiths	A/Cpl	PD	Whynott

GENERAL NEWS

RCDC(R) Officer Rank Structure Submission Approved

National Defence Headquarters has announced an increase in the rank structure of the RCDC(R) which includes a position in the rank of colonel, four lieutenant colonels and eight majors. This welcome news represents the first general revision in the dental officer establishment since 1955. The undermentioned promotions will become effective as indicated, and to these officers are extended our warmest congratulations.

Promoted A/Colonel

Lt Col RB Jackson, effective 14 Apr 64.

Promoted A/Lieutenant Colonel

Maj JA Lauziere and Maj DH Protheroe, effective 14 Apr 64; and
Maj FD Charman, Maj HR Kettys and Maj RA Fell,
effective 1 May 64.

Promoted Major

Capt RH Headley, 9 Apr 64;	Capt VM McMaster, 14 Apr 64;
Capt JF Eadon, 14 Apr 64;	Capt DR Girard, 14 Apr 64;
Capt LA Reynolds, 14 Apr 64;	Capt HK Meisner, 21 Apr 64;
Capt WR Collier, 28 Apr 64;	Capt JH Marion, 28 Apr 64;
Capt BA Gaudet, 28 Apr 64;	Capt JOL Bourget, 28 Apr 64;
Capt JY Turcotte, 28 Apr 64;	Capt JLY Cyrenne, 5 May 64;
and Capt JG Begin, 12 May 64.	

New Dental Unit Activated

On 1 Apr 64, No 1 Dental Detachment, Ottawa, was created from the five dental clinics in the Ottawa area which were formerly part of No 13 Dental Coy, Trenton. As Commanding Officer, Lt Col JC Brick is responsible to the Director General of Dental Services on matters of technical administration but for purely administrative purposes, the new unit is part of No 1 Army Administrative Unit at Army Headquarters.

Dental Section Proceeds to Cyprus

Three former members of 15 Dent Coy stationed at Camp Valcartier left Canada on 21 Mar for a tour of duty as the Canadian dental increment of the United Nations Force in Cyprus. Serving with the dental officer, Capt JML Rochefort who is originally from St. Fidele PQ are his DT Lab, Sgt MD Crockett of Charlottetown PEI, and his DA, Cpl JG Giroux of Drummondville PQ.

DIRECTORATE NEWS

Annual Unit Inspections

Brigadier KM Baird visited 12 Coy RCDC(R) from 9-13 Mar to inspect clinical facilities and to interview personnel. He was accompanied by Col RHG Cunningham, the CDO of Eastern Command.

Directorate Officers Visit Camp Borden

Brigadier KM Baird and Col IAL Millar visited Camp Borden 19-23 Feb to interview candidates on course at the School and also to partake in the Second Annual Bonspiel. Col Millar returned to Camp Borden on 12 Mar for the inspection of Corps Schools by Major-General JV Allard.

Lt Col GC Evans was the Corps representative at the DMT Training Conference on summer training plans held at Camp Borden 17-19 Feb 64.

Annual Inspection of Militia Dental Units

The inspection of those RCDC Militia units taking part in the General Efficiency Competition is being conducted this year by Lt Col GC Evans. It is intended that the winners of the various trophies will be published in the next issue of the Quarterly.

Mid-Winter Convention

Lt Col GC Evans represented Brig KM Baird at the 99th Mid-Winter meeting in Chicago 2-5 Feb 64.

Major JG Andrews

It is with extreme sorrow that the sudden passing away of Major JG(Jim) Andrews is recorded. Having retired from the Corps last June after a career in the Corps which began in April 1941, Major Andrews had only recently established himself in private practice in Toronto.

Our sympathy is extended to Mrs. Andrews and her four children who reside in Thornhill, Ontario.

11 DENT COY NEWS

New Clinic at Cold Lake

With a considerable feeling of satisfaction on the part of all concerned, the new clinic at RCAF Station Cold Lake was opened on 9 Mar 64.

Western Command Bonspiel

The Bonspiel was held in Edmonton on 2-5 Apr and once again attracted competitors from various parts of the Command. RCDC personnel participating included Lt Col Richardson and Sgts McKay, Christiansen and Moore plus many of the local residents. Among the prize winners were Col Kearney, Major Sivell, Capts Mason and Morin and Sgt Christiansen.

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12 DENT COY NEWS

Major CGB Grant Retires

An all ranks farewell party was held on the occasion of Major Grant's retirement and also to wish bon voyage to Major Phil Quinn who has returned to Vancouver after serving in HMCS Bonaventure.

Atlantic Command Bonspiel

A last minute entry for this issue of the Quarterly contains the good news that Capt Jack Quackenbush and his Stadacona rink won the Atlantic Command Curling Championship.

Eastern Command Bowling Championship

Captain BG Johnston of Gagetown won the high average and also the "High Three" title with 856 pins. Ssgt Wentzell and Cpl Martell were members of the Halifax Garrison team which won second place in the event.

13 DENT COY NEWS

Dental Society Meeting

On 29 Jan 64, approximately 25 members of the Bay of Quinte Dental Society met in the Officers' Mess at RCAF Station Trenton. The program included a discussion of Group Insurance by Mr. WE Jackson of the Royal College of Dental Surgeons of Ontario, a talk on the employment of Technical Dental Therapists by Lt Col CM Cornish and a showing of films covering various procedures in Oral Surgery.

Sports

Capt EW Gazo has recently been appointed coach of the Cdn Guards basketball team.

QMS(WO2) EE Mazerall officiated as a judge at the Eastern Ontario Area Boxing Finals at Camp Picton 17-18 Feb 64, and at the Central Command Boxing Championships held at Kingston from 25-27 Feb 64.

Congratulations are offered to the rink from No 2 Clinic, who won the Carling Trophy in the final bonspiel of the season at RCAF Station Clinton.

1st Clasp to CD



Sgt MA Craig was recently awarded the 1st clasp to his CD. He is shown above with Major JJN Wright, S/L ME Traxler and G/C KR Greenaway, CO RCAF Station Clinton.

14 DENT COY NEWS

Opening of Manitoba Legislature

The opening of the Manitoba Legislature on 6 Feb 64 was attended by Lt Col RB Jackson who served as a member of the Tri-Service Senior Officers Escort to the Lieutenant-Governor of Manitoba.

Handover Ceremony - Fort Churchill

Lt Col RB Jackson represented the Commander, Manitoba Area at the official handover ceremony in Fort Churchill on 31 Mar 64, at which time that Army installation was turned over to the Department of Public Works.

Sports

The Unit Bowling League has had a successful season and a gala windup banquet was held on 18 Apr 64.

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15 DENT COY NEWS

Farewell Party

Thirty members of 15 Dent Coy assembled at the Recreation Hall, 25 COD Longue Pointe, 29 Jan to honour Capt JWR Harrison on the occasion of his release from the Corps. Lt Col JG Butler presented "our Adjt" with a farewell gift on behalf of the personnel of the unit, to which Jack very loquaciously replied. We sincerely wish Jack and Polly continued good health and happiness in the years ahead. A special vote of thanks is extended to Maj HE McKenna and all the personnel at 2 Clinic for arranging the accommodation and buffet supper.

UN Standby Bn

A Dental Processing Team from No 8 Clinic at Camp Valcartier worked day and night to complete the necessary documentation and treatment for the UN Standby Battalion prior to their recent departure for Cyprus. We wish Capt Rochefort, Sgt Crockett and Cpl Giroux, who form the Dental Increment to the Battalion, a short and pleasant tour of duty.

Sports

WO2 Ed Moore won the High Average in the HQ Quebec Command Duck Pin Bowling League. Now for the playoffs.

Personnel

Major AR Ramsay attended the 99th Mid-Winter meeting of the Chicago Dental Society 3-5 Feb 64.

Report from Goose Bay

The Goose Bay Winter Carnival, otherwise known as "Little Armsbrooke", was a big success with all personnel of the clinic joining in the fun and games. Curling is back in full swing. Capt Begin was runner-up in the All-Night Bonspiel, and together with Capt Parent, Ssgt Robertson and Sgt Innis, has entered the forthcoming Family and Novelty Bonspiels.

Those members of the clinic staff who are being posted out of Goose this year are looking forward to the move from isolation back to the hard and rugged ways of civilization. On the other hand, LAW Gruener must have the "Goose Spirit" since she requested and has been granted a year's extension on the station.

The ice fishing has been good this year. Winter, however, closed in too fast for us and caught us napping, with the result that we could not get our fishing shack installed in time. Major Fell and his staff are all anxious for the Spring thaw when the cry will be "All hands on deck, stand by to get under way", and another adventuresome cruise on the WILMADOR will have begun.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

RCDC SCHOOL NEWS

Liaison Visit

Colonel GR Covey, accredited Liaison Officer to the Medical Field Service School at Fort Sam Houston Texas, returned to Camp Borden on 7 Mar 64 after spending a very informative week with Colonel Clare T Budge, the Director of Dental Science, and his colleagues at the School. Among the many highlights of the visit was the commissioning of Col Covey as an Honourary Citizen of the State of Texas, conferred on him by General Snider on behalf of Governor Connolly.

Visitors

Major General JV Allard, Major General Survival, accompanied by the Director of Military Training, Colonel W Milroy, and the Camp Commander, Brigadier WJ Moogk, visited the School on 12 Mar 64. General Allard was most interested in the training being conducted and spoke briefly to several candidates during his tour.

Golf

The Second Annual Corps Tournament will be held in Camp Borden on 25-26 Sep 64. Plan now to attend this 36-hole "TOURNAMENT OF POTENTIAL CHAMPIONS."

Curling

After a year's absence, two trophies were returned to the School Library during March. The Corps Bonspiel Champions, skipped by Maj Carter, took to the ice to add the Challenge Trophy to their award list, while the School rink, skipped by Capt Casterton were just as determined to retaliate for their defeat by this same rink in the Corps Bonspiel. The School was victorious although the outcome was in doubt until the last rock. This trophy is competed for annually between the Officers Clinical Course and the Officers of the School.

The Garth C Evans Trophy, for annual competition between the officers of the RCDC School and CFMS Training Centre, was returned by the 17 to 15 win of the School rinks skipped by Lt Col Thompson and Maj Sills.

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4 FD DENT COY NEWS

Accommodation

The renovation of the laboratory at Fort Chambly is nearing completion and an excellent job has been done in constructing new work-benches and cupboards. Besides providing space for all of the lab equipment, the new accommodation will be adequate to employ three or four technicians.

Special Events

A dental professional meeting was held on 30 Jan 64. Interesting papers were presented by Capt JF Eadon on "The Evaluation of the GA Patient", by Capt WR Collier on "Pin Amalgam Technique", and Major DJ MacPhee on "A Case Presentation".

A similar meeting was held at Fort Beausejour on 5 Mar 64. Surg Cdr JS Simpson spoke on "Occupational Hazards in Dentistry in Relation to Orthopedic Medicine".

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35 FD DENT UNIT NEWS

Professional Meetings

Lt Col LG Craigie and Capt JH Marion attended the March Study Club Meeting of the 767 Medical Detachment(DS), US Forces, held at Nancy, France on 20 Mar 64. One of the subjects was "Helpful Hints on Partial Denture Prosthesis", presented by Lt Col Harold E Naegeli DDS, of the US Army Dental Corps.

No 1 Clinic 1 Wing, Marville, France

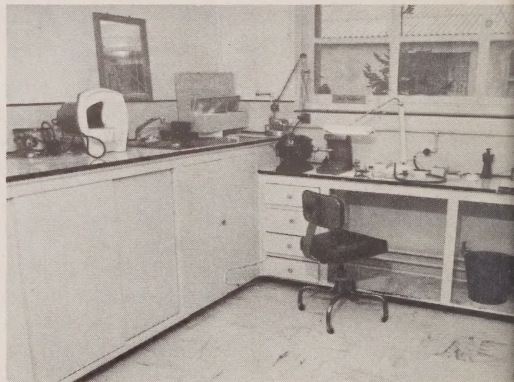
For many years the dental clinic at 1 Wg Marville, France was situated in the RCAF hospital and although this arrangement produced good relationships between the dental and medical staffs, the clinical accommodation was inadequate. Numerous efforts to improve this situation were fruitless until last year when authority was obtained to build a new clinic, using an existing building in a good state of repair, for this purpose.

In Sep 63 the necessary funds were made available and, after a slow start, the tempo of construction increased rapidly. Moving day was carried out with a minimum of fuss and the few problems encountered were quickly resolved. The new clinic was in full operation by 14 Jan.



This bright and well-appointed laboratory provides Sgt Marchand with the best of working conditions at No 1 Wing.

The spacious accommodation and new equipment are shown in this view of Maj Susser's operating room of the new clinic. Note the built-in cupboards and counter area.



We now have a large, bright, clinic that contains three operating bays, waiting room, office and orderly room, recovery room, x-ray and dark room, laboratory and store room. All operating rooms are equipped with surgical sinks, built-in cupboards and working places. Major IW Susser and his staff at 1 Wg are delighted with their new surroundings and equipment and they feel that their clinic is second to none in the Corps.

CBU(UNEF) NEWS

Special Events

In January the Adjutant General, General WAB Anderson, visited Camp Rafah and inspected the Dental Clinic. The RCDC were represented on the ceremonial parade by Sgt Sapergia, Lsgt McDonald and Cpl Vandervaart, while Major Pyne, Capt Cyrenne and Capt Paturel were in the reviewing stand.

Leave and Tours

January to March are dreary months in the Middle East and every one has taken the opportunity to go on leave. Maj Pyne went to Jerusalem during February and came back loaded with literature, the reading of which should help pass many more evenings. Capt Paturel spent twelve days in Europe, and claims to be an expert on where not to sleep in Athens. Capt Cyrenne toured the UNWRA establishment in early February and later that month Ssgt Roberts, Sgt McDonald and Cpl Vandervaart enjoyed a week in Cairo. In March, Cpl Johnson also visited Cairo while Sgts Chase and Sapergia accompanied a convoy to Port Said, where they made several purchases and saw the sights.

VITAL STATISTICS

Births To: Maj and Mrs JJN Wright, RCAF Stn Clinton, a daughter;
Capt and Mrs JPP Prud'homme, Camp Valcartier, a daughter;
Ssgt and Mrs WA Bennett, DGDS a son;
Sgt and Mrs A Bramble, CJATC Rivers, a daughter;
Cpl and Mrs RT Buncombe, DGDS, a son;
Cpl and Mrs GN Fathers, Camp Borden, a son;
Cpl and Mrs DE Fraser, Camp Borden, a daughter;
Cpl and Mrs AW Hussey, HQ Montreal, a daughter;
Cpl and Mrs RL Lindsay, London, a son;
Sgt and Mrs KP Shappee, Vedder Crossing, a son; and
Cpl and Mrs GM Wadden, HMCS Stadacona, a son.

Marriages: LAW DJM McNichol, 35 Fd Dent Unit, to LAC Gagnon; and
LAW DA Turner, 35 Fd Dent Unit, to LAC Titus.

Deaths:- Sympathy is extended to the following members:

Capt JCRR Roy, who recently suffered the loss of his mother;
Capt JRA Vincent, whose mother passed away;
Sgt MP Foley, whose father passed on after a lengthy illness;
WO2 and Mrs Abernethy, whose infant son, born 27 Jan 64,
passed away on 15 Feb 64; and
Cpl A Pink, who suffered the loss of his father on 26 Mar 64.

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ROYAL CANADIAN DENTAL CORPS

Quarterly

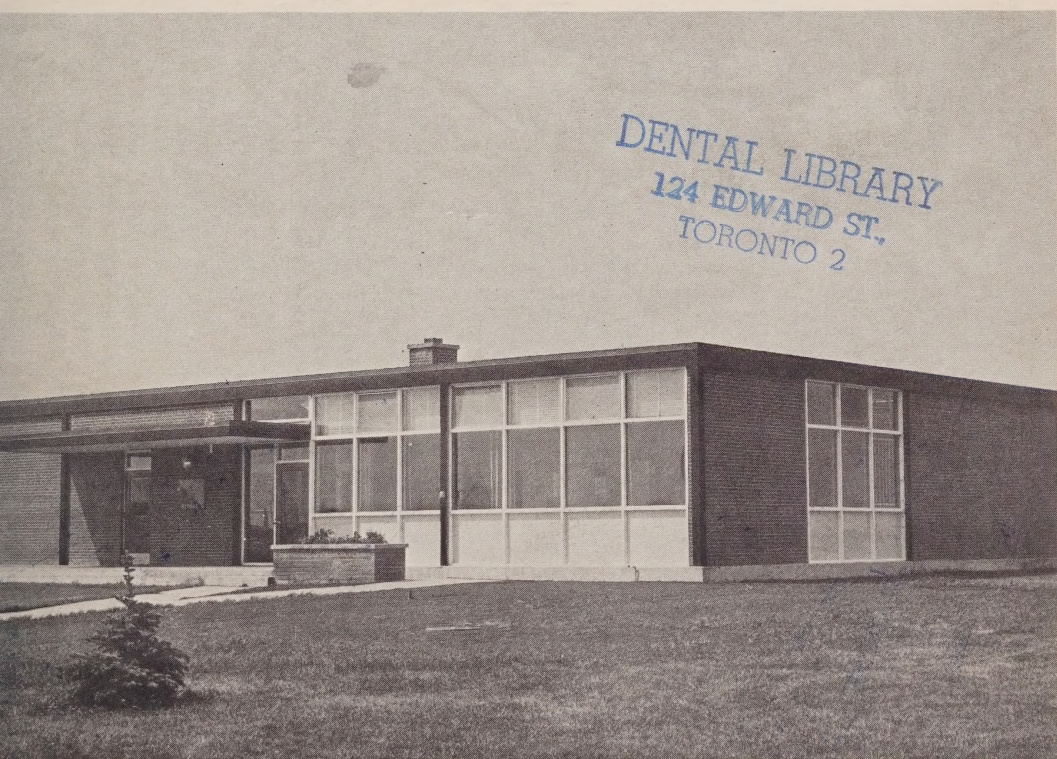


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THE RCDC QUARTERLY

Published by authority of Brigadier KM Baird, Director
General of Dental Services for the Canadian Forces

Editorial Board: Colonel AC Leman
Lt Col DH Hillier
Lt Col SG Bagnall
Major WH Harrington

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EDITORIAL

The RCDC Quarterly is a self-supporting publication but depends for its existence on the contributions and goodwill of all members of the Corps. Its primary aims are being achieved in that it enables our personnel to express themselves in writing on subjects which they believe to be in the interest of our profession and our service in Canada's Armed Forces. It is also the only available means by which we are able to keep abreast of current personnel changes which constantly take place throughout our organization. Through its circulation, the RCDC is publicized in many civilian and military installations outside of Canada and is represented in what appears to be a most favourable manner.

If the Quarterly is to continue as a Corps project it must receive the enthusiastic support of all members not only through the nominal annual subscription but by means of well-prepared contributions to the literary content. It is no surprise to the Editorial Board that the units which contribute the most in subscriptions and submissions are those which are the most loyal and outspoken adherents of this effort. It is even less surprising to note that these are the same units which so readily display, under any circumstances, the "esprit de corps" which has set our service at a special level in the Canadian Forces.

Next year the RCDC will celebrate its fiftieth anniversary and in this the Quarterly will play a prominent part. If such is to be the case, then a wholehearted response is expected from all those who form a part of what we like to refer to as "The Corps".

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Cover Photograph

This fine accommodation at Griesbach Barracks, Headquarters Western Command is now occupied by the Quartermaster's Stores Section, No 11 Dental Coy which was formerly located in Calgary. The building was designed and built to house Quartermaster Stores and, hence, provides excellent, modern facilities. From all reports, the move up from Calgary was accomplished smoothly and all members of the staff are commended for their efforts in getting back into business so quickly.

PLANNED SELF-IMPROVEMENT FOR THE DENTAL TECHNICIAN CLINICAL

WO2 HEG Franzgrote

Since 1956 the Royal Canadian Dental Corps has trained dental technicians clinical at the RCDC School and the candidates who have passed these courses in dental hygiene have, in the meantime, proven their value as highly trained auxiliaries. When the clinical technician completes his first comprehensive course he has gained a wealth of new knowledge and skills, and a desire to help his fellow man through his newly developed capabilities. He has also found a new sense of value through contact with the complex world of the medical-dental sciences.

As in any other field, his learning is by no means complete and one may ask:

1. Where will the dental technician clinical go from here?
2. How should he adapt himself to keep up with new developments and the constantly changing situations of Service life?
3. How can he keep abreast with new attitudes, theories and practices which are the result of research in all specialties of dentistry, particularly as they apply to dental health education? and
4. How best can he become proficient in the use of other technical and professional media which may be utilized in dental health education?

The clinical technician in the RCDC holds at least a senior NCO rank and is committed to an important role within the sphere of dental public health. To assist the dental officer in this demanding task he must be a leader and, as a leader, he should look for ways and means to better himself. Leadership is an art which requires self-expression. Basic rules and formulae may be used as guides, to convert knowledge into techniques. There comes a time, however, when the techniques are mastered and personal characteristics and self-acquired knowledge must be blended in, thus leading to self-expression. Perfection in leadership, as in any art, is never achieved. There is always room for improvement. The management engineers of the RCAF Air Defence Command put it this way:

"The idea of perfection can be conjured in the minds of men, but it is an illusive something which we

never quite capture. Perhaps this is good, for it offers a challenge which few can resist accepting. So the search for perfection never ends and from this search comes an infinite stream of improvements and amendments. Such is progress."

Techniques of leadership as applied to dental health education must reflect changing times, variations in customs, and differences in the ideals, fads, and trends of the community. Furthermore, applied research in psychology, sociology, and related fields render invalid some of the previously accepted techniques and a change is needed.

The word "change" means different things to different people but, for the most part, is met with negative emotions such as resentment, fear or discomfort. This fact can be one of the greatest obstacles to health education. There is always resistance to change, unless the positively oriented and receptive mental level or mood of any particular group is reached, and unless the practical application of our teaching is understood. This applies to different conditions of life in the Armed Forces - in the field, in the air, at sea, or at the home base. It applies, similarly, to all groups of tradesmen and to their particular working conditions. To speak "their language" one must know about the people concerned and their work, social problems and living habits. This can only be accomplished by grasping every opportunity to meet and get to know new arrivals and other Servicemen whom one has not met before. Of equal importance in this regard is the need for the dental health educator to strive continuously toward self-improvement. Methods for self-improvement include increasing his academic learning and extensive reading. Observation and the informal study of interesting subjects which relate to the field of dental public health will also prove valuable. There are readily available countless opportunities for self-development. Books have been written on the subject, and millions of dollars have been spent by government and industry in the development of specialists and leaders in this field. Courses are also available, often without charge.

Before embarking on any program of self-improvement, however, one should turn his thoughts inward and take stock of himself. He should analyse his weak and strong points and consider the following three requisites of success: the desire to improve; the demonstration of wisdom in selecting proper actions; and the allotment of time necessary to work toward improvement. The desire must come from within, the wisdom must be developed, and the time must be planned.

One of the most convenient ways of keeping up with current events is by daily newspaper. The ability to scan the columns for lines of value, and to use them as ideas in one's work is a step in the right direction. Of equal importance is the development of a critical eye to discover useful expressions and opinions. Facility in this regard is a valuable asset in sifting through the jungle of less important news, space-fillers, and persuasive advertising. Magazines or journals can serve as guides to the philosophy and

practice of the pursuit of happiness and can lead to an understanding of the thoughts of other groups, professions and occupations, each of which consider their cause and work essential.

Dental health education competes directly with a great number of idealistic and commercial ideas in the struggle for influence over the human mind and the clinical technician should gain insight into the workings and media of other organizations by studying their techniques. With this knowledge he then can improve on his own methods. He should never forget that he has a trump over some of his competitors in other fields. Dental health is designed for a healthier and better life, and the only requirement is the listener's initiative and interest in himself. On the other hand, the clinical technician should present his material sincerely and with no ulterior or gainful motive.

The multitude of ideas and impressions that influence us every day is staggering, and the ability of the human brain to store all this information is equally amazing. This fact should be exploited. Newspapers, radio and television are of great value in the accumulation of knowledge. Talking to people at the chair, in the messes and elsewhere elicits additional information and insight.

In considering methods of communication, one should not forget other informative services which may be used to advantage by the clinical technician. The Canadian and American Dental Associations publish lists of dental health education material. Certain life insurance companies issue informative publications while other Service and civilian organizations distribute interesting and thought provoking newsletters. These often provide further references to good reading, films and other media. Examples of these are the monthly letters of most banks, which may be obtained free of charge. Ticonium's TIC Magazine, Dental Radiography and Photography by the Eastman Kodak Company, The Management News Letter of the RCAF Air Defence Command are also recommended. Furthermore, the RCDC Quarterly and the Journals of many Dental Associations are available at every clinic.

Additional valuable aids will be found in the lists of the Queen's Printer which publishes a great variety of materials. The US Government Printing Office offers a similar service, selling official books, pamphlets, and brochures on a number of subjects and these are well worth the price.

For a very small outlay or no cost at all, any clinical technician can undertake an extensive program of education and self-improvement through which new interests will be aroused and misconceptions cleared up. By this means a more objective and effective dental health presentation may be offered.

Editor's note:

The following two articles serve as a summary of the Cogswell Technique of Controlled Tooth Division as presented at the recurring seminars conducted by Wilton W. Cogswell Sr., for the Dental Services Division of the U.S.A.F. Defence Command. Certain portions of the original manuscript for each article have been deleted to avoid duplication. Line drawings used in both articles were prepared by Major EJ Small.

PRE-OPERATIVE ASSESSMENT OF THE MANDIBULAR THIRD MOLAR

Lt Col IR Pierce, CD, DDS

The surgical removal of mandibular third molars is frequently undertaken by the general practitioner with some apprehension lest complications arise with which he is unable to cope. Such self-doubts often arise from lack of a precise technique to cover all exigencies, a lack which is easily understood in view of the limited training received in such techniques during undergraduate study. It does not follow, however, that only those who undertake extensive post-graduate work should attempt to remove impacted mandibular third molars. An appreciation of the fundamentals involved and strict adherence to certain principles of diagnosis and surgery will promote self-confidence, which in turn will reduce the number of unfortunate sequelae.

The prime objective in the removal of any mandibular third molar is not merely to remove the tooth but to remove it atraumatically. The mandibular third molar, unlike the rest of the normal dentition, often occurs in such a position that it cannot be dislodged by the pressure of forceps without causing undue damage to the adjacent anatomic features which include:

1. the second molar and its investing tissues;
2. the lateral pharyngeal space and the body of the ramus;
3. the lingual alveolar plate and lingual nerve; and
4. the mandibular canal with its contents.

Pre-operative assessment therefore is most necessary to eliminate or minimize trauma and the post-operative sequelae of pain swelling, paresthesia and shock.

Surgical problems may result from three variable factors:

1. the form of the tooth;
2. the position of the tooth; and
3. the form of the investing tissues.

Tooth form and position should be carefully noted pre-operatively and an adequate radiograph taken to determine the number of roots, their curvature, the possible presence of an

inter-root bone latch, and the relationship of the roots to the mandibular canal.

The controlled tooth division technique is based on mechanical principles and hence it is mandatory to observe the relationship of the third molar to the second molar; i.e. whether the third molar position is vertical, mesioangular, distoangular, horizontal or buccolingual horizontal, and whether the relationship is crown to crown, crown to cemento-enamel junction, or crown to root.

Perhaps the most significant surgical problem is accessibility, which is governed by the anatomy of the investing bone and its associated soft tissues. Cogswell (1) notes: "There are three basic classifications of the ramus based on the mesiodistal relation of the anterior border of the ramus to the distal surface of the second molar regardless of the third molar or its position in the retromolar area."

In the schematic drawings, Figures 1, 2 and 3, these classifications of the ramus are shown in lateral views. It should be noted that the relationship between the curvature of the mandibular canal and the anterior border of the ramus remains constant in all three basic classifications, producing a more abrupt curvature of the canal as the ramus advances mesially.

Class I Ramus (Fig 1)

The anterior border of the ramus is in the extreme distal position in its relation to the distal surface of the second molar. The third molar is fully erupted, lies completely within the body of the mandible and is in normal relation and contact with the second molar. The mandibular nerve is well below the root apices of the third molar and it is also slightly to the buccal.

Class II Ramus (Fig 2)

The anterior border of the ramus is advanced mesially. The third molar is in a more buccal position and is partly within the body of the ramus. The crown of the third molar in this position will be partly covered by bone. The mandibular nerve is close to the root apices of the third molar but is usually in a slightly buccal position.

Class III Ramus (Fig 3)

The anterior border of the ramus is in the most advanced position with respect to the distal margin of the second molar. The third molar is entirely within the body of the ramus and is completely covered by bone. In order to remain within the body of the bone, the tooth, is markedly toward the buccal and the mandibular canal often creates a groove in the roots of the third molar.

From observations of several thousand mandibles, Cogswell notes that 6 percent of all rami are in the Class I position, 80 percent in Class II, and 14 percent in Class III.

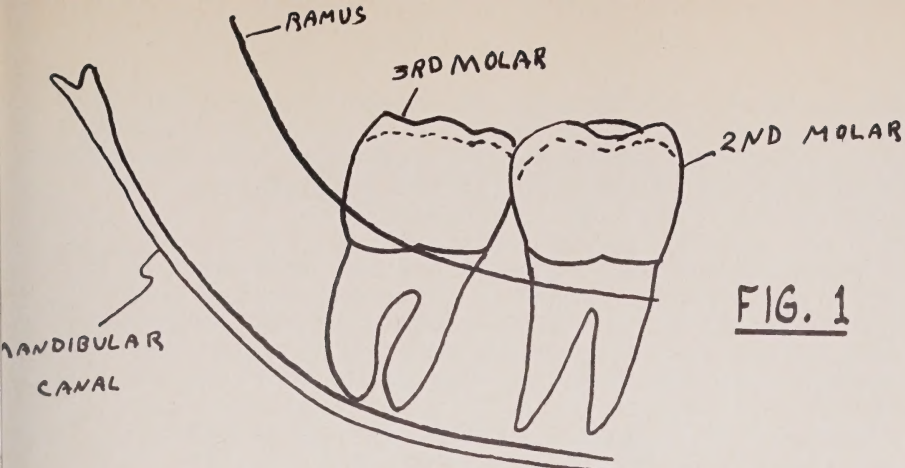


FIG. 1

CLASS I RAMUS

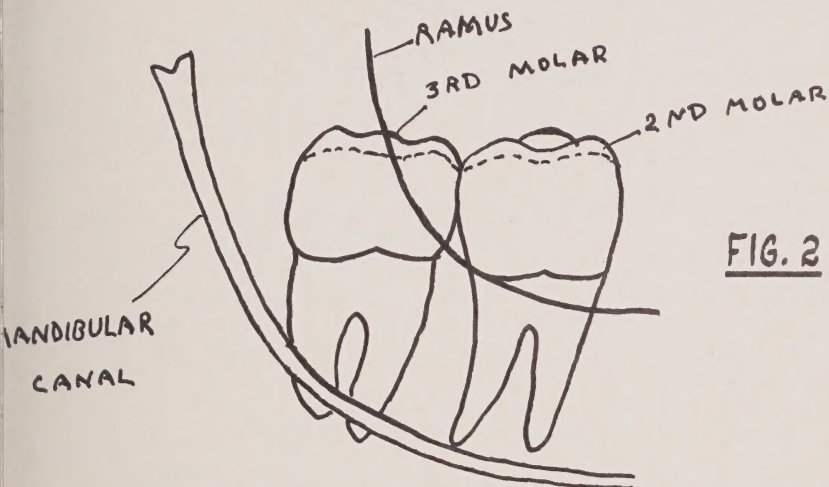


FIG. 2

CLASS II RAMUS

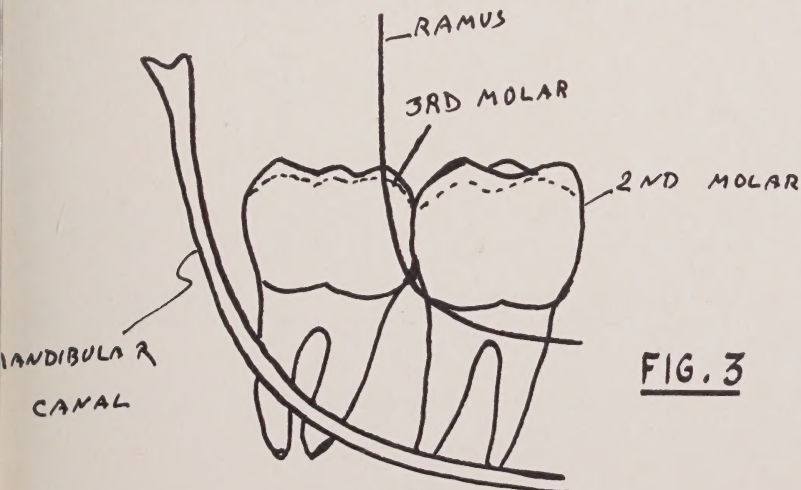


FIG. 3

CLASS III RAMUS

As was mentioned previously, an adequate pre-operative radiograph is of the utmost importance for a rational diagnosis. Many radiographs of the mandibular third molar produce inaccurate images of the area, thus causing surgical difficulties. The following radiographic technique is recommended:

1. Adjust the patient's head high and well back so that the occlusal plane of the open mandible is in a horizontal position. This position causes the tongue and sublingual tissues to relax and fall low in the floor of the mouth.
2. Place the film packet so that the upper edge is at least five millimeters above and parallel to the occlusal plane of the first and second molars. For a patient with a Class I ramus the film packet usually can be placed easily; with a Class II or Class III ramus it is necessary to contour the distal portion of the film packet to conform to the curvature of the throat laterally.
3. The anterior border of the film packet must bisect the mesial root of the first molar.
4. The angle of exposure is directed at right angles to the film packet on the horizontal plane of the cusps of the first molar and directly through the contact area of the first and second molars. The anticipated position of the impacted third molar must be ignored if a true diagnostic image is to be obtained.

The radiograph has diagnostic value only if:

1. there is no overlap at the contact area of the first and second molars;
2. the buccal and lingual cusps of the first and second molars are superimposed exactly upon each other; and
3. the anterior border of the film bisects the mesial root of the first molar.

Summary

1. Pre-operative assessment is a fundamental requirement in the atraumatic removal of the lower third molar.
2. The major anatomic factors of the retromolar area and a method of classifying the various types of rami have been presented.
3. A technique for obtaining radiographs of diagnostic value has been described.

THE COGSWELL TECHNIQUE OF CONTROLLED TOOTH
DIVISION IN THE REMOVAL OF THE IMPACTED THIRD MOLAR

Major EJ Small, CD, BA, BSc, DDS

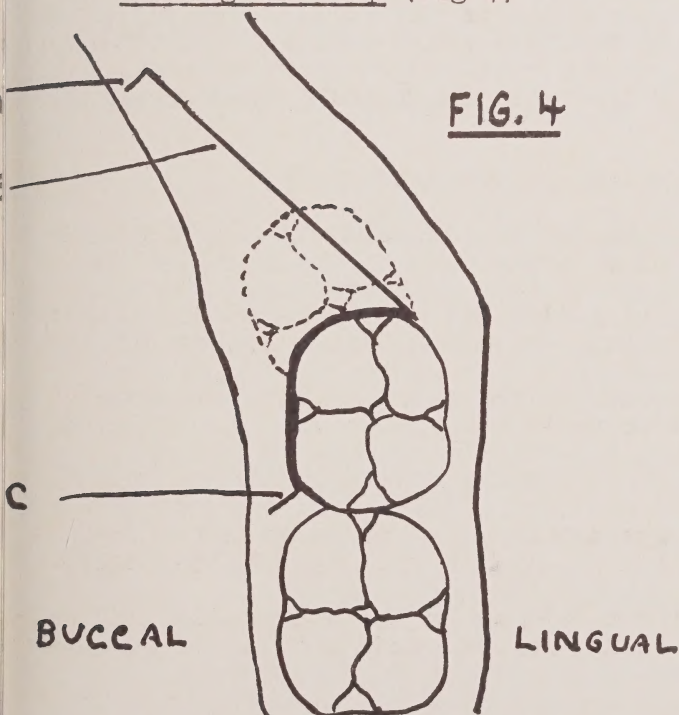
Although the details of the Cogswell technique are specific for the impacted mandibular third molar, the principles involved are valid for any tooth whether impacted or not. The removal of the third molar is treated as a surgical problem to be considered in four distinct phases:

1. Classification;
2. Pre-operative Diagnosis and Planning;
3. Division and Removal; and
4. Post-operative Considerations.

(Editor's Note - The first two phases have been dealt with by Lt Col Pierce in his article which will be found on page five of this issue.)

Division and Removal

Raising the flap (Fig 4)



Regardless of the classification of the impaction, all flap incisions are begun at the disto-lingual corner of the second molar and carried for a distance of one and one half crown lengths toward the buccal, crossing the investing bone of the mandible or ramus at a slight angle. A short right angled incision is then made toward the buccal at the end of the first incision, and finally, another short buccal incision is made at the mesial corner of the second molar to help in retracting the flap.

B - 1ST INCISION

A, C - SHORT BUCCAL INCISIONS ⁹

The reflection of the flap is made with a sharp chisel, not the periosteal elevator. The gingival tissue around the second molar is separated from the bone to the origin of the first incision, making sure to sever all the periosteum. The tissue on the lingual side of the incision is disturbed as little as possible - just enough to raise the lingual point of the flap and sever the fibrous attachment of the retromolar pad.

Exposing the crown

The flap is then retracted gently toward the buccal, and the bone overlying the crown is removed by making a series of perforations with a bone bur, placed according to the contour of the crown and connected by a sharp chisel or a cross-cut fissure bur. The lid thus formed is lifted free and the margins trimmed. The whole of the superior surface of the crown must be visible to a point slightly distal to the cemento-enamel junction, where the first cut in controlled tooth division is made.

Effect of exposing the crown of an impacted tooth in this manner

A young tooth has a developmental space around the crown, and the walls of the socket are composed of vascular bone which bleeds readily and heals rapidly when the tooth is removed. In older patients the developmental space loses its vascularity and becomes calcified around the crown of the tooth, gradually including the disto-lingual portion of the crown. Because of the denseness of bone, bleeding is limited and healing retarded. When the surface of this bone is removed with the bone bur, however, a bleeding wall is produced which hastens the healing process.

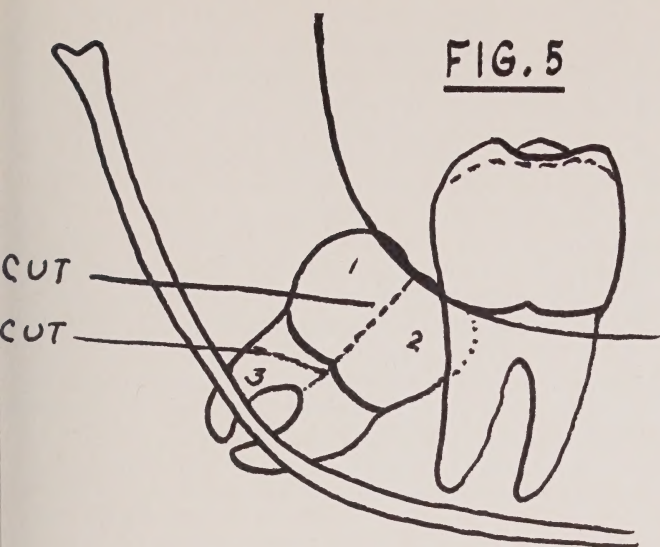
Surgical complications from use of excessive force

Practically any tooth can be dislodged if one is prepared to use sufficient force or to remove enough bone to allow the tooth to be pried from its position. Such treatment, however, may cause compression of the mandibular canal, injuring or even severing the mandibular nerve. There is also the danger of perforation of the lingual wall of the ramus; injury to the cancellous bone of the ramus; or even the loss of the second molar. All of these occurrences can be prevented by controlled division of the tooth which permits its removal by finger pressure alone. To quote Dr. Cogswell, "We must always bear in mind that we are trying to remove the tooth from the patient, and not the patient from the tooth."

Technique for the removal of the two most common classes of impactions

Although mandibular third molars may be impacted in any direction, they most frequently assume either a mesio-angular or a horizontal position, and these two types will be considered in detail. If there is any doubt concerning the exact classification the tooth should be treated as a horizontal impaction and removed accordingly.

Division and removal of the mesioangular impacted mandibular third molar (Fig 5)



**DIVISION OF MESIOANGULAR
IMPACTED THIRD MOLAR**

The first division ("A" cut) is made by cutting through the crown in the long axis from buccal to lingual almost to the bifurcation of the root. Care must be exercised to avoid entering the bone on the lingual surface. The tooth is then divided with the flat blade elevator. Although the distal portion of the tooth may appear to be free, it must not be levered out at this time. Instead, a transverse cut is made downward and lingually through the distal root. ("B" cut) Avoid penetration of the lingual bone. Normally, the distal section of the crown may now be lifted out with ease. If it resists moderate pressure, however, it should be divided mesiodistally and removed in sections.

After removing the distal half of the crown, the mesial half with its attached root is moved upward and distally until the cemento-enamel junction of the mesial surface of the tooth can be seen. Sometimes this portion will come out easily with the flat blade but it may be necessary to put in a traction point with a bone bur and remove it with the round tip elevator. The distal root may now be moved mesially and taken out with the pick, putting in a traction point if required.

Division and removal of the horizontal impacted mandibular third molar (Fig 6)

In the removal of the horizontal impacted third molar, the "A" cut must extend through the crown bucco-lingually in such a manner that the crown portion will be shorter mesiodistally at the base than at the superior surface. The crown is separated from the root with the flat blade, and the "B" cut made through the crown mesiodistally. When this is done the crown is divided with the flat blade, and the lingual half moved upward. A space is thus created for the buccal half, which is then removed.

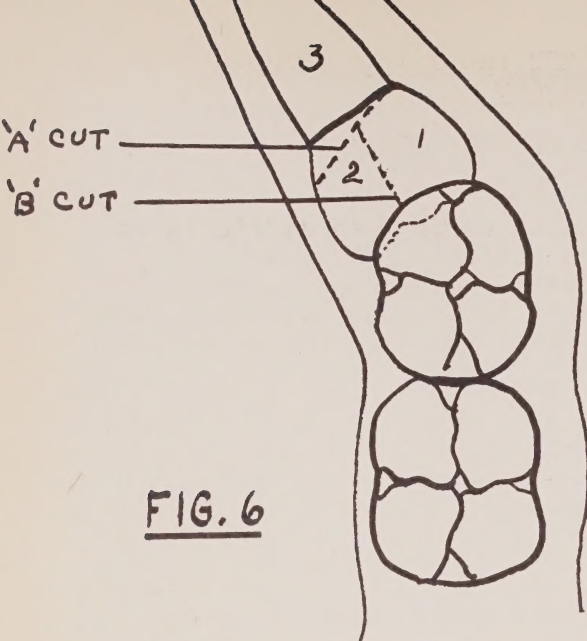


FIG. 6

DIVISION OF

HORIZONTAL IMPACTED

THIRD MOLAR

sutured into position, the socket is irrigated through this opening with 0.5% tincture of metaphen.

If the tissue at the distobuccal corner of the second molar is hypertrophic, this gingival margin should be trimmed away to provide a new tissue attachment.

Post-Operative Considerations

Before leaving the clinic the patient should be provided with analgesic tablets and also an ice-pack to hold against the mandible for fifteen minutes to control swelling. He should be instructed to restrict his food to fluids for the next twenty-four hours and to return the following day for observation.

Summary

An outline of the Cogswell technique of controlled division and removal of the impacted mandibular third molar is presented under the general headings of classification, pre-operative diagnosis and planning, controlled division and removal, and post-operative considerations. Two classes of impaction, the mesioangular and the horizontal are considered in some detail.

The developmental membrane should be cleared with a curette to provide greater visibility, and a traction point placed in the superior portion of the exposed root. Often there is only one root, which is brought forward and upward. When there are two roots the resistance is felt, a "C" cut is made to separate them and they are removed individually.

As soon as the tooth has been removed, all cystic or developmental tissue is removed from the socket, the fibrous ends of bone are made smooth, and operative debris is flushed out with warm normal saline solution. A post-operative radiograph will indicate whether or not the socket is clear. In the Cogswell technique, no packing is placed in the socket but an opening is made for irrigation and drainage by cutting away a triangular portion of the retromolar pad immediately distal to the second molar. After the flap is replaced and

THE PROGNATHIS MANDIBLE - THE PROSTHETIC APPROACH
A CASE REPORT

Major IE Kelly, CD, BA, DDS

The typical Class III malocclusion is most difficult to treat successfully particularly when coupled with speech, masticatory and psychological disorders. Despite this fact, the relatively high incidence (from 0.5 to 2 per cent) dictates that the general practitioner should be prepared to recommend treatment.

True mandibular prognathism is an idiopathic condition and heredity is considered to be a prominent factor in its etiology. It should not be confused with instances where congenitally underdeveloped maxillas demonstrate an apparent mandibular prognathism. Caldwell (1) has stated that hyperactivity of the growth centers in the condyles is largely responsible for the condition, while Pascoe (2) has noted the difficulty in determining the true etiology which may lie in the aberration of any of the following factors: heredity, endocrines, growth of the cranial tissue, appositional bone growth, bone resorption, alveolar process development and functional activity.

There are many approaches to the treatment of mandibular prognathism. Most writers suggest orthodontic procedures as the first step and, if these do not provide a functional and aesthetically pleasing result, surgery becomes the treatment of choice. Since Hüllihen pioneered surgical correction for mal-relation of the mandible in 1848, a number of surgical approaches have been developed which involve both the ascending ramus and the body of the mandible. Open and closed surgery using both intra- and extra-oral approaches have been recommended. With the exception of the Kostecka Gigli saw technique, these are all lengthy, major surgical procedures and which, together with the difficulty of obtaining the services of a specialist, often means that the only person available to deal with the problem is the general dental practitioner. Sometimes, prosthetic appliances may be the treatment of choice. In the prognathis series by Derby, Chatwin and Duff (3), three of seventeen cases were corrected to acceptable aesthetic and functional limits without surgical intervention by means of complete dentures with flat occlusal planes. The case reported here considers the fabrication of cast metal framework overlay in the treatment of a young soldier.

Report of Case

The patient, a 21 year old serviceman, had a severe mandibular prognathism (Figs 1 and 2). He had been subjected to a great deal of barrack room kidding and was extremely self-conscious and sensitive about his deformity. Financial considerations had precluded surgical intervention as a civilian and Service commitments made this type of treatment impractical. Intra-oral examination revealed that the mandibular incisors protruded 12 mm beyond the maxillary incisors. The oral hygiene was excellent.

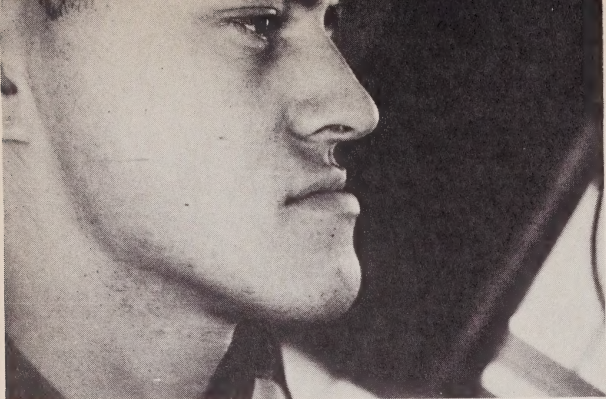


Fig 1

Profile Before Treatment



Fig 2

Occlusion Before Treatment

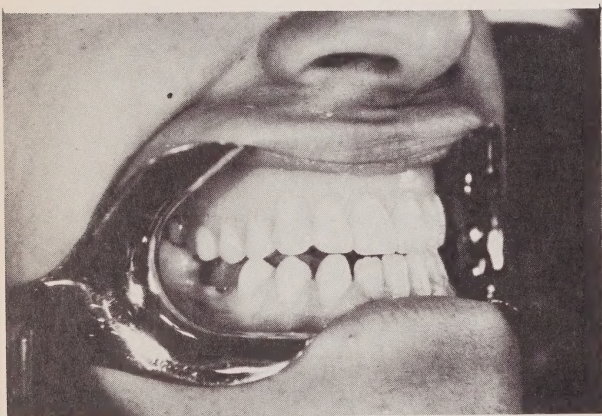


Fig 3

Temporary Acrylic Denture

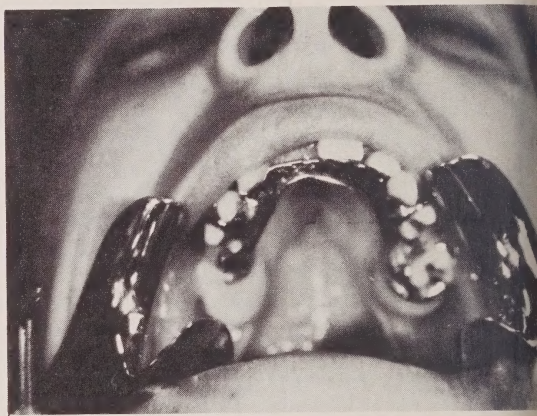


Fig 4

Ticonium Framework

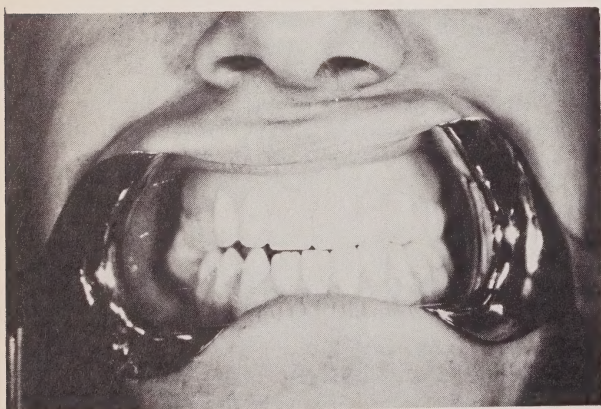


Fig 5

Ticonium Denture Inserted

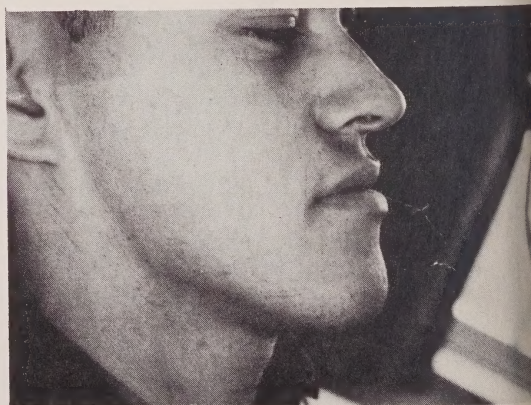


Fig 6

Profile with Denture

$\frac{76}{76} \frac{21}{6} \frac{58}{6}$ were missing and in centric occlusion, only $\frac{3}{54} \frac{35}{56}$ were in contact. Fortunately he had a long upper lip and a large vestibule in the maxillary anterior area.

It was decided to open the bite 8 to 10 mm by means of a maxillary denture with the anterior teeth set forward of his own and with a slight overbite. A temporary acrylic denture was made. The patient responded well and, following insertion of the appliance (Fig 3), made a remarkable transition. After approximately six weeks, a ticonium framework was fabricated and a new appliance was made with an open palate. In general, the aesthetics and bite of the acrylic denture were duplicated although the maxillary teeth in the right posterior region were placed somewhat more to the buccal (Compare Fig 3 with Fig 5). The laboratory technique for each of these dentures was as follows:

1. The maxillary teeth on the model were blocked out and a path of insertion was established with a surveyor.
2. The model was duplicated and both upper and lower models were mounted on a Hanau articulator.
3. The upper masticating surfaces were brought into occlusion by means of built out wax and teeth and a biting plane with a slight overbite was established. It is to be noted (Fig 2) that the patient previously had contact in the anterior region only in the cuspid area.

Post insertion results are shown in Figs 5 and 6

The patient has noted a pronounced increase in the efficiency of mastication. He lost little duty time during treatment, has experienced minimal inconvenience and is very satisfied with the results. His mental attitude is greatly improved and he is no longer the subject of ridicule. Because the long upper lip allows the lips to remain closed at rest, the patient has not become a mouth breather as might be expected with the insertion of this bulky appliance. After six months, the tissue tone is excellent and, as a result of his good oral hygiene, no caries have developed and the prognosis is good. Since no family heredity was reported, it is considered that the under-development of the facial aspect of the maxilla may have been due to the development of the anterior teeth in linguo-version: indeed, it is this writer's opinion that the patient has developed a pseudo-prognathism.

Summary

The prognathis problem is discussed from the general practitioner's point of view and the prosthetic appliance used in one instance is described. Motivation and rigid oral hygiene are cardinal factors in this approach to the successful treatment of prognathism.

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EFFECTIVE WRITING

Lt Col DH Hillier, CD, DDS, MPH

Professional polish is not to be expected from non-professional writers but it is reasonable to anticipate a degree of competency and evidence of care in the work of those who aspire to be read. It matters little whether the manuscript is unsolicited or requested; similarly, it makes little difference whether it bears the author's name or is cloaked in the anonymity of a submission from unit headquarters. Whatever one writes should be written to the best of one's ability.

A mediocre standard of writing may simply evolve from a lack of experience in the art but frequently reflects a total disregard for objective evaluation by the author of what he has produced. Craddock (1) has delineated effective writing succinctly by saying:

"It seems that two moods contribute to effective writing. They might be described as the inspirational or subjective, and the critical or objective. Write in the first mood; revise in the second."

Adherence to this maxim will prove of inestimable value in improving the readability of prose.

Composition should not be started until the subject has been well defined and the main points to be made are either firmly in mind, or better yet, put on paper as paragraph headings. From such a framework, the article should be composed as quickly as possible while the "inspirational mood" remains fresh. It is suggested that this draft should be put away for a while and returned to later with as objective a mind as can be assumed. On re-reading, the form and substance of the work should receive the following type of evaluation:

Form

1. Does each paragraph contain the presentation and development of only one thought or, on the other hand, is there an artificial division where the content of two paragraphs should rightly be contained in one?
2. Is there redundancy?
3. Is the choice of words varied, interesting and precise? Restrict the use of "pet" expressions - those words or phrases which appear so frequently that they become monotonous and lose their effectiveness.

4. Is there an over-abundance of adjectives and adverbs? Each of these should be assessed to determine whether or not they add to the forcefulness of the word or phrase they modify. "Very, most, quite" and other such modifiers seldom strengthen an adjective or adverb and should be used sparingly.
5. Are all the sentences of relatively equal length? If so, the reader will become bored. To maintain interest, not only sentences but also paragraphs should be of varying length and complexity.

Substance

1. Is each sentence pertinent to the subject and is there a logical progression of ideas?
2. Are there gaps in the sequence; is there presumption that the reader is able to bridge these gaps where, indeed, he may not have sufficient knowledge of the subject to do so?
3. Alternately, is there more detail than is required by the anticipated readership?
4. Does the opening paragraph contain the germ of all that follows and is the closing paragraph the essence of what has gone before?

Adoption of questions such as these will elicit others of equal value in the production of acceptable prose.

One cannot easily be objective concerning his own writing and it follows, therefore, that the neophyte should seek constructive criticism from someone who can and will evaluate a proposed submission for him. If the comment reflects only satisfaction with the paper then it is necessary to look elsewhere, for only the ego is served by such non-specific evaluation. As experience is gained, the facility for subjective and objective writing is sharpened, the number of re-writes is reduced and more acceptable composition ensues. Books on creative writing will provide inspiration and direction but competency is won only through experience and the development of a capacity to critically evaluate one's own work.

Effective writing presumes a knowledge of a subject and a desire to be read. It entails a methodical and wholehearted effort and thrives on adherence to certain basic rules, on a sense of style, critical appraisal and on experience. With so much to be read it is presumptuous to expect anyone to devote his attention to something that is less than the best possible effort of the writer.

Reference

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GENERAL NEWS

Fellows Of The International College Of Dentists

Colonel IAL Millar, Deputy Director General of Dental Services and Colonel BP Kearney, Command Dental Officer, Western Command were recently inducted as Fellows of the International College of Dentists. These Fellowships were awarded in appreciation of their contributions to arts, sciences and general welfare of the dental profession.



Seen following the ceremony, which took place in Edmonton on the 27th of June 1964 are: (Left to Right) Colonel IAL Millar, Colonel GB Shillington (Retired), Mrs. Kearney, Brigadier RM Baird, Mrs. Shillington and Colonel BP Kearney.

Major Wright To Attend Course At Walter Reed

As was mentioned in the last issue, a vacancy is being held for an RCDC officer on the 44 week course in Advanced Theory and Science of Dental Practice at the United States Army Institute of Dental Research at Washington D.C. Nominated to attend this course is Major JJN Wright of RCAF Station Clinton, who will proceed to Washington in September.

Capt Woodcock

It was with deep sorrow that the death of Captain GR Woodcock on the 6th of July 1964 will be learned by his many friends in the Corps.

The year following his retirement in 1960, Capt Woodcock was employed by the University of Alberta Dental Faculty and subsequently was on Continuous Army Callout on the staff at Headquarters Western Command. He is survived by his wife and four children.

DIRECTORATE NEWS

Board Of Governors Meeting

Brigadier KM Baird, a member of The Board of Governors of the Canadian Dental Association, attended the Annual Board Meeting in Edmonton, Alberta.

While in Edmonton Brigadier Baird also attended the joint convention of the Canadian Dental Association and the Alberta Dental Association.

Summer Concentration

Colonel IAL Millar visited Camp Gagetown, NB 13-15 Jul 64 as an Army Headquarters observer during the Regular Force Summer Concentration.

ODA Convention

Colonel AC Leman represented the DGDS at the Ontario Dental Association Convention in Toronto 10-13 May 64.

Major Brusso to London, England

Major AW Brusso, Senior Procurement Officer, visited the Medical Directorate War Office, London, England to attend the annual meeting of the Standing Working Group for Table of Medical Equivalents.

Major Harrington Attends Conferences

Major WH Harrington took part in a Management Training Symposium at CASC Kingston, Ontario 17-19 June 1964. During the period 27-30 July 1964 he attended a symposium on "Applied Preventive Dentistry" held at the US Army Institute of Dental Research, Washington, D.C.

Editorial Board Changes

Lt Col DH Hillier has been posted to 11 Dental Coy for service in Edmonton and will be replaced on the Board by Major WH Harrington. Lt Col Hillier has put a great deal of time and effort into the production of the Quarterly in the past few years and his absence will be acutely felt by the new Editorial Board.

Sports

Sgt Semple and Cpl Buncombe tried out for the D Pers Baseball team and are now regulars as Shortstop and Outfielder respectively.

WO 1 Jones, Ssgts Roberts and Smallshaw have been regular participants in the AHQ Golf Tournaments. In the last two outings Ssgt Smallshaw has been a winner (Class "C", Third Low Net).

Annual Conventions - CDA and ADA

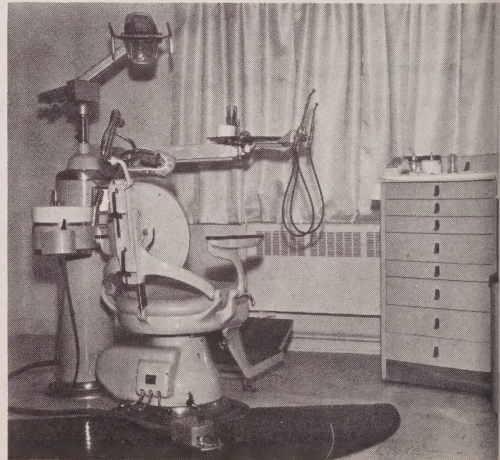
The Canadian Dental Association meetings held in conjunction with the annual meeting of the Alberta Dental Association, took place in Edmonton 29 Jun to 1 Jul 64. Brig Baird and Col Millar attended from the Directorate. In addition to local residents, the Corps was represented by Lt Col Pierce from Esquimalt, Major Jolly from Calgary, Major Hinch and Capt Hill from Cold Lake, Capt Kamachi from Chilliwack and Capt Mason from Penhold. Major Jolly presented a highly interesting and informative table clinic on "Dowel Crowns".

Cold Lake Clinic Officially Opened



The new dental clinic at RCAF Station Cold Lake, was officially opened by Brigadier Baird on 23 Jun 64. Shown attending the ceremony are: (Left to Right) Cpl Hardy, Sgt Fox, Cpl Neill, Major Hinch, Col Kearney, Brig Baird, Capt McRae, LAW Wood, Capt Hunter, LAW Crevier, Capt Walls, Cpl Giacobbo, Capt Hill, Capt Chernesky and Ssgt Shand.

To demonstrate the excellent facilities provided in the new clinic, one of the operating rooms is shown in the accompanying photograph.

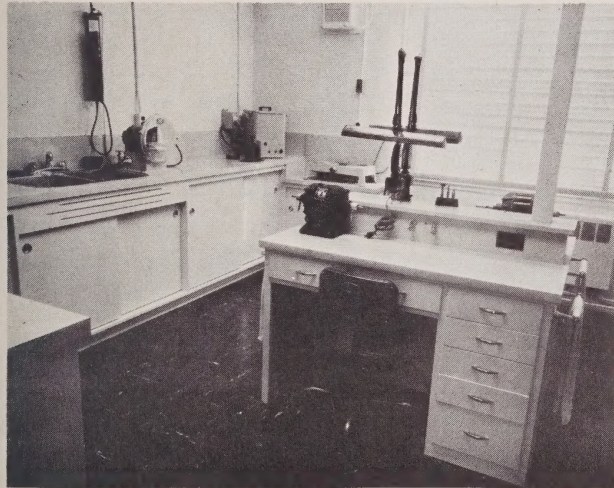


13 DENT COY NEWS

CDO to Europe

Colonel AT Roger, representing the DGDS, carried out the annual inspection of overseas units in May. Col Roger visited all clinics of 4 Fd Dent Coy and 35 Fd Dent Unit and interviewed personnel. He also made a liaison visit to Canadian Joint Staff in London and to the Headquarters of the RADC. Mrs Roger accompanied Col Roger on portions of the trip and they were able to enjoy a short period of annual leave touring Italy.

New Clinic



The laboratory of the newly occupied dental clinic at RCAF Station Clinton.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

14 DENT COY NEWS

Lt Col Anglin to Command

Lt Col WW Anglin will assume command of 14 Coy following a two year tour of duty in "La Belle Province" at RCAF Station St Jean.

Appointments

The services of Lt Col IA Richardson have been loaned to the Faculty of Dentistry, University of Manitoba where he will be employed in the Prosthetic Department for the academic year 1964/65.

Posting Party

The annual posting party, held in RCAF accommodation on 19 Jun 64 was well attended by unit personnel. Presentations were made to Col RB Jackson, Capt GJ Moore and Ssgt AJA MacFarlane who have left the unit and carry with them our best wishes.

15 DENT COY NEWS

Personnel of 15 Dent Coy



No 8 Dental Clinic,
Camp Valcartier, PQ

Front Row (L to R)

Miss Georgette Haggie,
Major JL Masse, Major
JD Bourque, Miss
Fleurette Parent.

Second Row (L to R)

Corporals MD Longford
JR Pouliot, C Lachance
WO 2 R Fortin, Sgt TH
Southin.

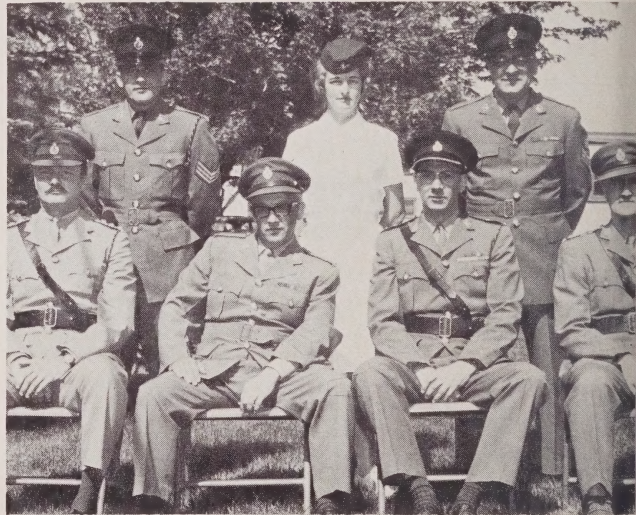
No 9 Dental Clinic, RCAF
Station, St Jean, PQ

Front Row (L to R)

Capt PS Wade, Major PH
Guevremont, Lt Col WW
Anglin, Capt JR Senechal.

Second Row (L to R)

Sgt JM Chayer, LAW MYC
Lachance, Ssgt GH Couture.



Farewell Party for Lt Col Butler

Thirty members of 15 Dent Coy assembled at 25 COD Longue Pointe on the evening of 10 Jul to honour Lt Col JG Butler, who, after three years as unit CO, has been posted to HMCS Cornwallis. Lt Col WW Anglin presented the guest of honour with a farewell gift on behalf of the personnel of the unit. We sincerely wish Lt Col Butler the very best in his new appointment as Senior Clinician of 12 Dental Company.



Change of Command

Colonel RB Jackson assumes command of 15 Dent Coy from Lt Col JG Butler on 8 Jul 64.

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RCDC SCHOOL NEWS

Exchange Postings with US Army

Major PS Sills has left for a two year tour of duty at Walter Reed Army Medical Centre in Washington D.C. Major DH Newell of the US Army Dental Corps has arrived in Camp Borden and will serve on the instructional staff of the RCDC School for a like period.

Liaison Visit by Col Budge

Colonel Clare T Budge, Director Department of Dental Science, Medical Field Service School, Fort Sam Houston, Texas made his third liaison visit to the RCDC School during May. He accompanied Colonel LA Potter, Assistant Commandant of MESS who visited the CFMSTC.



During the visit, the Commandant and Officers of the RCDC School presented Col Budge with a framed RCDC Crest, as a token of the esteem with which this officer is held by the staff of the School. The occasion is represented in this photograph of: (Left to Right) Lt Col RE Brown, Capt RH Crowson, Lt Col DH Protheroe, Colonel Budge, Major WH Murray, Capt DG Cartwright, Colonel GR Covey, Major PS Sills, Lt Col JW Turner, Major JM Smith, Lt Col WR Thompson and Capt CA Casterton.

HQ Personnel During Col Roger's Visit



Colonel AT Roger visited 4 CIBG for the period 12-17 May to inspect dental facilities and interview 4 Fd Dent Coy personnel.

Front Row (L to R): Sgt SD Posyluzny, Pte LE Wannamker, Ssgt TW Sullivan, WO 2 DW Riddell, Pte EW Moore;

Second Row: Sgt EV Tanner, Col AT Roger, Lt Col G MacDougall, Capt FC Arpin.

Professional Meetings Held

Two Dental Professional Meetings were held in this area during recent months, the first being at the British Military Hospital Renteln while the final meeting of the season was held at Sennelager.



On the latter occasion, the attendance was encouraging as seen by the photograph. Only certain officers are identified as: Front Row (L to R): 1st Capt H Bruner US Army Dental Corps, 4th Lt Col AJL Wheatley RADC, 5th Col James RADC, 7th Lt Col G MacDougall RCDC, 8th Lt Col Elliott RADC; Back Row: 5th Capt FC Arpin RCDC, 6th Major JF Eadon RCDC, 7th Major WR Collier RCDC, 8th Major JVP Chatwin RCDC, 14th Major RH Headley RCDC, 15th Major IA Reynolds RCDC, 16th Major G Smith RADC.

Accommodation

It's "business as usual" at Unit Headquarters even though painters have all but taken over our offices. Painting was started on 22 June and the finished product, as exemplified by several of the rooms, makes burning eyes and strong odours almost worthwhile.

Sports

In most sports, a high score denotes a good game. This does not hold true for golf, however, as demonstrated by Lt Col Craigie and Capt Van Ryssel whose "rather" high scores failed to help the cause of the Air Division Headquarters team during the annual Air Division Golf Tournament held at Baden-Baden in late June. The tournament was won by No 3 Wing.

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CBU(UNEF) NEWS

"Canada Day" in Middle East

Seventeen Canadian radio and television personalities provided some much appreciated "home-brew" entertainment as the 900 Canadian soldiers in Egypt's Sinai Desert played host to their sister contingents of UNEF at a special version of "Canada Day". Carol Ann Balmer "Miss Canada 1964", Gordie Tapp, Bert Niosi and the other performers gave a one-hour show which was followed by a Canadian film feature and food to fit the occasion, including hot-dogs and popcorn.

Personnel

We feel that this detachment has long since ceased to be a "fledgling" outpost of the Corps, and to prove the point we present our "honour roll" of those officers who have toured the Sinai Strip.

As Majors:

Major	PS	Sills	Lt Col	HR	Kettyls
Lt Col	G	MacDougall	Major	JCE	McDonald
Major	DJ	Carmichael	Major	EJC	Small
Major	AL	Kelland	Major	RJK	Pyne
Major	TC	Gaudet			

As Captains:

Major	JJN	Wright	Capt	FC	Buschlen	(Released)
Major	LA	Reynolds	Capt	JS	Davis	(Released)
Capt	FC	Arpin	Capt	DE	Williams	(Released)
Major	JOL	Bourget	Capt	RDH	Bunt	(Released)
Capt	RJ	Paturel	Capt	MDG	Conrad	(Released)
Major	BA	Gaudet	Capt	R	Lanthier	(Released)
Major	JLY	Cyrenne	Capt	RG	Perry	(Released)
Capt	PAA	Dailyde	Capt	KN	Munroe	(Released)

WELCOME TO THE CORPS

Congratulations are extended to the twenty-three graduates who have recently been promoted to the rank of Captain and who are now employed at the following locations:

Capt	RWC	Adams	- NDHQ Clinic, Ottawa
Capt	DJM	Boston	- RCAF Stn, Greenwood
Capt	RW	Chernesky	- RCAF Stn, Cold Lake
Capt	RH	Crowson	- RCDC School
Capt	GDV	Dippel	- RCAF Stn, Goose Bay
Capt	WH	Dunnigan	- Calgary Garrison
Capt	N	Goldberg	- HMCS Stadacona
Capt	H	Griesbach	- Camp Petawawa
Capt	MH	Harach	- RCAF Stn, Winnipeg
Capt	JPJ	LaPorte	- Camp Valcartier
Capt	MG	McRae	- RCAF Stn, Comox
Capt	JA	Nattress	- RCAF Stn, Winnipeg
Capt	RFC	Oswin	- RCAF Stn, Namao
Capt	DJAG	Pigeon	- RCAF Stn, St Jean
Capt	GE	Purcell	- Griesbach Barracks
Capt	V	Rausch	- RCDC School
Capt	JR	Robertson	- HMC Dockyard, Halifax
Capt	GR	Rowe	- HMC Dockyard, Halifax
Capt	JO	Strom	- HMC Dockyard, Halifax
Capt	TC	Tervit	- RCAF Stn, Trenton
Capt	JWC	Walls	- RCAF Stn, Cold Lake
Capt	RE	Warren	- RCAF Stn, Clinton
Capt	BH	Weeks	- RCAF Stn, Rockcliffe

A cordial welcome is also extended to the following personnel who have recently joined the Corps:

Pte	GG	Albertson	- HMC Dockyard, Halifax
Pte	WD	Buxton	- Camp Gagetown
Pte	RE	Todd	- 4 Fd Dent Coy
Pte	LE	Wannamker	- 4 Fd Dent Coy
LAW	MJ	Hebert	- RCAF Stn, Goose Bay
Mrs	CN	Colleaux	- Fort Osborne Barracks

PROMOTIONS

The following Corps personnel are congratulated on their promotions:

WO 1	MB	Fisk	- to Lt	WO 2	ESW	Moore	- to Lt
WO 2	TL	Batten	- to WO 1 (SM)	WO 2	EC	Carpenter	- to WO 1 (TSM)
WO 2	RH	Daw	- to WO 1 (SM)	WO 2	TM	Jackson	- to WO 1 (SM)
WO 2	H	Thorsson	- to WO 1 (SM)	Sgt	AF	Davison	- to WO 2 (DQMS)
Sgt	JS	Wentzell	- to WO 2 (DQMS)	Sgt	JP	Carrier	- to Sgt
Sgt	JM	Roberts	- to Sgt	Cpl	AH	Green	- to Sgt
Cpl	JG	MacDonald	- to Sgt	Cpl	JG	MacPhee	- to Sgt
Cpl	GD	Schwarze	- to Sgt	Cpl	WL	Wylie	- to Lsgt
Pte	JAL	Boulianne	- to Cpl	Pte	NL	Highfield	- to Cpl
Pte	LJP	Nadeau	- to Cpl				

RETIREMENTS AND RELEASES

Capt	JSE	Dorion	Capt	AG	Garden
Capt	RJ	Gillis	Capt	KSM	Mathers
Capt	JJ	Mitchinson	Capt	M	Petryk
Capt	PP	Prud'homme	Capt	JR	Senechal
Capt	WJ	Thomson	Capt	CG	Travis
Capt	LK	Wansbrough	Capt	DA	Warrick
Capt	JB	Wilcock			
WO 2	RWM	Hall	Sgt	JRM	Chayer
Cpl	HW	Anderson	Sgt	MP	Foley (RCAF)
Pte	R	Taillon	LAW	MFE	Audet
LAW	EE	Beaver	AWL	SJD	Clutterbuck
LAW	SD	Fitzpatrick	LAW	DJM	Gagnon
Miss	JL	Blumes			

POSTINGS

Lt Col	WW	Anglin	-	HQ 14 Dent Coy, Winnipeg
Capt	LV	Armstrong	-	RCAF Stn, Gimli
Major	JF	Begin	-	4 Fd Dent Coy
Lt	VO	Bergland	-	HQ 13 Dent Coy, Trenton
Lt Col	JC	Brick	-	35 F Dent Unit
Capt	HW	Brogan	-	RCAF Stn, Greenwood
Major	HG	Bunston	-	RCAF Stn, Goose Bay
Lt Col	NA	Butcher	-	RCAF Stn, Trenton
Lt Col	JG	Butler	-	HMCS Cornwallis
Major	DJ	Carmichael	-	RCAF Stn, Clinton
Capt	HJ	Cashin	-	HMCS Stadacona
Capt	CA	Casterton	-	1 Dent Eqpt Dep
Lt Col	FD	Charman	-	RCAF Stn, St Jean
Lt Col	CM	Cornish	-	1 Dent Det, Ottawa
Lt Col	IG	Craigie	-	DGDS
Capt	MN	Deyette	-	HQ West Ont Area, London
Major	WK	Dickie	-	35 Fd Dent Unit
Major	PE	Fafard	-	HMC Dockyard, Esquimalt
Lt Col	RA	Fell	-	HQ East Ont Area, Kingston
Major	BA	Gaudet	-	35 Fd Dent Unit
Major	TC	Gaudet	-	CBU (UNEF)
Capt	EW	Gazo	-	4 Fd Dent Coy
Major	DDR	Girard	-	25 COD, Longue Pointe
Major	WH	Harrington	-	DGDS
Major	RH	Headley	-	Camp Gagetown
Capt	GW	Hill	-	HQ Sask Area, Regina
Lt Col	DH	Hillier	-	Griesbach Barracks, Edmonton
Capt	IP	Hunter	-	QM Stores Griesbach Bks, Edmonton
Col	RB	Jackson	-	HQ 15 Dent Coy, Montreal
Lt Col	HR	Kettyls	-	HMCS Stadacona
Capt	WR	Kyle	-	Camp Picton
Capt	JPA	Legendre	-	Camp Petawawa
Major	IAC	MacDonald	-	RCAF Stn, Downsview
Major	DJ	MacPhee	-	CFH, Kingston
Capt	NA	McFarlane	-	6 RD, Trenton

Major	VN	McMaster	-	RCAF Stn, Summerside
Capt	CM	Mason	-	RCAF Stn, Penhold
Major	HK	Meisner	-	Fort Churchill
Capt	GJ	Moore	-	HQ 13 Dent Coy, Trenton
Capt	PP	Morin	-	4 Fd Dent Coy
Capt	RJ	Paturel	-	HMCS Shearwater
Lt	RG	Peebles	-	RCDC School
Major	RJK	Pyne	-	RCAF Stn, Comox
Major	MP	Quinn	-	HQ BC Area, Vancouver
Capt	WE	Russell	-	RCAF Stn, St Jean
Capt	MD	Taylor	-	RCAF Stn, Moose Jaw
Major	JJY	Turcotte	-	NDHQ Clinic, Ottawa
Capt	PS	Wade	-	RCAF Stn, Bagotville
Sgt	WJ	Arnsby	-	1 Dent Det, Ottawa
WO 2	AJ	Arsenault	-	25 COD, Longue Pointe
Sgt	LR	Barrett	-	1 Dent Det, Ottawa
Cpl	RS	Black	-	RCAF Stn, North Bay
WO 2	VO	Blackmore	-	RCAF Stn, Downsview
Sgt	IG	Brown	-	15 Dent Coy, Montreal
Cpl	N	Cable	-	Fort Churchill
WO 1	EC	Carpenter	-	1 Dent Eqpt Dep
Ssgt	JP	Carrier	-	RCDC School
Sgt	H	Chamberlain	-	HQ Man Area, Winnipeg
Sgt	CA	Chartier	-	1 Dent Det, Ottawa
Ssgt	MF	Conkey	-	QM Stores Griesbach Bks, Edmonton
WO 2	AF	Davison	-	HQ 15 Dent Coy, Montreal
Sgt	AH	Green	-	CBU (UNEF)
Cpl	BF	Hannah	-	RCAF Stn, Winnipeg
Cpl	B	Hannay	-	CBU (UNEF)
Pte	PE	Harkin	-	RCAF Stn, Greenwood
Cpl	TJ	Herrett	-	CBU (UNEF)
Cpl	NL	Highfield	-	RMC, Kingston
WO 1	TM	Jackson	-	1 Dent Eqpt Dep
Sgt	WA	Jackson	-	Fort Osborne Bks, Winnipeg
Sgt	EA	Jermain	-	HMCS Stadacona
Cpl	RB	Johnson	-	14 Dent Coy, Winnipeg
Sgt	C	Johnston	-	HMCS Naden
Ssgt	VR	Kidd	-	RCAF Stn, Trenton
Sgt	HC	Kirby	-	RCDC School
Sgt	GKW	Libby	-	4 Fd Dent Coy
Ssgt	AJA	MacFarlane	-	HQ 12 Dent Coy, Halifax
Sgt	FK	MacKay	-	HMCS Shearwater
Cpl	PA	McCoy	-	RCAF Stn, Comox
Sgt	HM	McCurdie	-	35 Fd Dent Unit
Sgt	MO	McDonald	-	HMCS Cornwallis
Cpl	RW	McDonald	-	QM Stores Griesbach Bks, Edmonton
Cpl	H	McRae	-	RCAF Stn, Winnipeg
Cpl	OW	Mandrusiak	-	RCAF Stn, North Bay
Sgt	JF	Marchand	-	RCAF Stn, Clinton
Sgt	H	Marckwort	-	Griesbach Bks, Edmonton
Pte	ZWJ	Mitrikas	-	NDHQ Clinic, Ottawa
Sgt	JM	Moore	-	QM Stores Griesbach Bks, Edmonton
WO 2	WD	Morris	-	RCDC School
Sgt	DT	Murley	-	RCAF Stn, Clinton

Cpl	LJP	Nadeau	- HQ 14 Dent Coy, Winnipeg
Cpl	RA	Neill	- RCAF Stn, Cold Lake
Cpl	TR	O'Mara	- HQ West Ont Area, London.
Sgt	RH	Palmer	- 1 Dent Eqpt Dep
Cpl	WJ	Parker	- 1 Dent Det, Ottawa
Sgt	DB	Playford	- CFH, Kingston
Sgt	SD	Posyluzny	- HQ 13 Dent Coy, Trenton
WO 2	W	Powers	- Fort Osborne Bks, Winnipeg
Sgt	WS	Richardson	- 1 Dent Det, Ottawa
Ssgt	JM	Roberts	- Pers RCDC, Ottawa
Ssgt	SE	Robertson	- HQ Calgary Garrison
Sgt	G	Sapergia	- RCDC School
Ssgt	KJ	Smallshaw	- HQ 12 Dent Coy, Halifax
Pte	JA	Strasdin	- 1 Dent Eqpt Dep
Sgt	AJ	Tait	- 4 Fd Dent Coy
WO 2	JM	Tapp	- RCAF Stn, Goose Bay
Sgt	GH	Taylor	- RCDC School
Cpl	B	Vandervvaart	- DGDS
Cpl	GM	Wadden	- 35 Fd Dent Unit
WO 2	JS	Wentzell	- 1 Dent Eqpt Dep
Ssgt	CR	White	- QM Stores Griesbach Bks, Edmonton
LAW	J	Boucher	- RCAF Stn, St Hubert
LAW	BJ	Larose	- RCAF Stn, St Hubert
LAW	JH	McDonald	- RCAF Stn, Comox

VITAL STATISTICS

Births To: Ssgt and Mrs G Shand, RCAF Station, Cold Lake, a son;
 Sgt and Mrs DL Fenton, RCAF Station, Winnipeg, a son;
 Cpl and Mrs DE Fraser, RCDC School, a daughter;
 Cpl and Mrs ADT Gardner, RCDC School, a daughter;
 Cpl and Mrs RS Walker, RCDC School, a daughter.

Marriages: Capt LW Armstrong, RCAF Stn, Gimli, to Ethel Rae Neelands;
 Capt PR McQueen, CJATC Rivers, to Melva Jean Barrie;
 Cpl NL Highfield, RMC Kingston, to Judith Ann McDonald;
 Cpl RE Thompson, RCAF Stn, St Jean, to Nicole Christopher;
 Pte LJP Nadeau, QM 14 Dent Coy, Winnipeg, to Theresa Ann Kotar
 LAW MD Cyr, RCAF Stn, St Jean, to IAC W Golimbioski;
 LAW C Lachance, RCAF Stn, St Jean, to IAC JRM Daigneault;
 LAW JM Stangowitz, RCAF Stn, Trenton, to IAC Mackie.

Deaths: Our deepest sympathy is extended to:
 Brigadier KM Baird, whose mother passed away in early July;
 Sgt AW Wilkinson, who suffered the loss of his father.

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The

ROYAL CANADIAN DENTAL CORPS

Quarterly



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THE RCDC QUARTERLY

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Major WH Harrington

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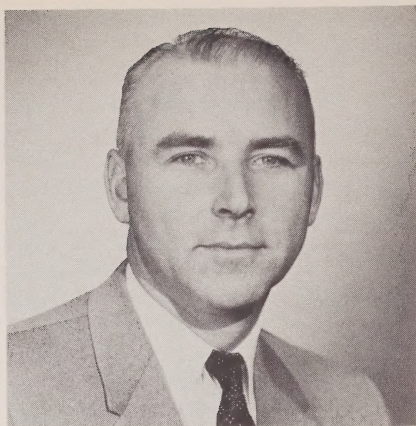
Cover Photograph

Class of Third Phase Candidates of the Dental Officers Subsidization
Plan with Col GR Covey, Commandant and Lt Col JW Turner, Chief Instructor at
the main entrance of the RCDC School, Camp Borden.

PERIODONTAL PROGNOSIS 1964

J.W. Neilson, B.A., D.D.S., M.Sc.

Professor of Periodontology, and
Dean, Faculty of Dentistry,
University of Manitoba,
Consultant in Periodontology,
Royal Canadian Dental Corps.



Dr J.W. Neilson

I. Introduction:

This contribution is based on the very realistic assumption that in your clinic one morning appears a patient, Lieutenant X, who knowingly or unknowingly, has a periodontal condition of a chronic, destructive nature. It is unnecessary at this point to list or to say more of the specific signs and symptoms of his case. Our primary concern here is rather a consideration of those criteria which should be applied in answering the question which sooner or later will arise in the mind of the Lieutenant, (if not in your own). His ultimate question will probably be voiced in words such as these: "How long can I expect to keep my teeth?" Now this is one of those questions, which in order to be answered fully and correctly, requires additional qualification, and in this instance, the full question should probably read: "Assuming I undergo treatment, how long can I expect to keep my teeth in a reasonable state of health, with a minimum of discomfort, and with at least acceptable function and appearance?"

All of this may be consolidated into one word, namely "prognosis" which is defined in Dorland in these words: "a forecast as to the probable result of an attack of a disease; the prospect as to recovery from a disease afforded by the nature and symptoms of the case." To this definition may be appended the relevant statement of Glickman, "as well as the reasonable expectation of the disease's response to treatment."

It is readily apparent that prognosis of any kind is synonymous with "prophecy" and the role of the prophet has always been a precarious one, regardless of whether he operated in the days of the Old Testament or whether he operates in the environs of today's racetracks. However, the game is made less hazardous if one adheres to the well-known military admonition that "time spent in reconnaissance is seldom wasted", and indeed much of the remainder of this submission concerns itself with a reconnaissance of those points which can be applied with profit to the case of Lieutenant X, before giving him an answer to his question.

Before proceeding to the prognostic criteria which should be applied to the periodontium, it is necessary to differentiate between "comprehensive prognosis", (overall prognosis), and "individual prognosis", (prognosis for each component tooth).

In recording the comprehensive prognosis then, one speaks in terms which most accurately describe the entire mouth or at least one arch, while in recording the individual prognosis one singles out the individual tooth (or teeth) which may have a poor prognosis and which consequently will have to be sacrificed. This distinction between "comprehensive prognosis" and "individual prognosis" is emphasized at this point simply because it is felt the word "prognosis" is frequently used indiscriminately and as a result, it is used incorrectly.

Then too, there is a need in any dissertation on the subject of periodontal prognosis to distinguish between "objective" and "subjective" factors. In this context, objective factors are considered to be those which deal with the clinical, radiographic, and/or laboratory findings of the case, while subjective factors are considered to reflect the "feelings" of the patient or the dentist on the case and on its treatment. In few other areas of present day dental practice are subjective factors more significant than in periodontal prognosis.

A word should also be said in this preamble about the aforementioned definitions of Dorland and Glickman and their application to periodontal pathoses. Dorland uses the word "recovery", and the rather pessimistic point must be made that if recovery is taken to mean "a return to completely ideal normal form, function, appearance, and health", then in the majority of cases of chronic destructive periodontal disease, that sort of recovery is impossible. This is particularly so in relation to form and appearance. However, if "recovery" means primarily "a return to normal function", then the picture becomes much brighter, for "the reasonable expectations of the disease's response to treatment", (to quote Glickman), will include in many instances, a return to normal utilization, function, and health, if not a return to ideally normal form and appearance. The distinction is one which it is propitious to make in any preliminary discussion with the patient because he may be expecting the treatment to produce, or to result in, no anatomical or aesthetic deficiency whatsoever. Unfortunately, in many cases, such an expectation is a groundless hope, in the light of knowledge and methods of treatment presently available to us.

II. Subjective and Objective Questions and Points of Importance in Prognosis

With all the foregoing in mind, it is possible now to proceed to a listing, (with an accompanying brief narrative where appropriate), of those questions and points which we should ask either ourselves or Lieutenant X, before arriving at a decision on his periodontal prospects. These matters will be presented under the following headings:

- A. Subjective Questions of Importance in the Prognosis.
- B. Objective Points of Importance in the Prognosis.
- C. Summary of the Objective Questions of Primary Interest.

A. Subjective Questions of Importance in the Prognosis

- 1. Am I, the dentist, an advocate of periodontal treatment generally?
- 2. Do I feel competent to render the treatment indicated in the case?
- 3. Does the patient fully understand and appreciate the problems and aims of periodontal treatment?
- 4. When he is in full possession of the facts, is the patient's attitude still firmly positive toward the retention of his natural dentition (in a state of reasonable health)?

5. Will the patient be available both for concentrated treatment and for regular and rather frequent recall?

THE MORE AFFIRMATIVE REPLIES, THE BETTER THE PROGNOSIS.

B. Objective Points of Importance in the Prognosis

1. The examination of the case

- (a) the more careful the examination procedure, the BETTER the prognosis x

Note:

- (1) the more adequate the physical armamentarium, the better should be the examination,
(2) this armamentarium involves such items as a good light source, a satisfactory periodontal probe, a good diagrammatic chart and a set of meaningful symbols.

2. The diagnosis of the disease

- (a) the more accurate the diagnosis, the BETTER the prognosis x

Note:

- (1) aids to accurate diagnosis include such items as a good classification of disease, sound diagnostic criteria, and an ability to interpret the examination data and correlate them with the diagnostic classification.

3. The amount, the pattern and the type of bone loss

- (a) the greater the bone loss, the poorer the prognosis
(b) the more clearly demarcated the bone loss, the BETTER the prognosis.

Generally speaking when the phrase "the BETTER the prognosis" is used in this paper, it really means "the MORE FAVOURABLE the prognosis". However, an interesting paradox or ambiguity emerges in 1 (a) and 1 (b), in that a thorough examination should lead to a more accurate diagnosis and subsequently to a more sound treatment plan. This in turn should contribute to a more favourable prognosis. On the other hand, though, the same thorough examination and accurate diagnosis may also establish the fact that the prognosis for a given tooth or arch, is in reality, poor, and nothing can alter this fact. On this basis then the careful examination and the accurate diagnosis cannot be said always to confer a better or more favourable prognosis.

- (c) the better the correlation between bone loss and etiology, the BETTER the prognosis

Note:

- (1) the roentgenogram tells only "half the story", as the tooth frequently obliterates much of the facial and lingual bony picture

- (2) while vertical bone loss decreases the possibility of satisfactorily obliterating a co-existent pocket, it does not adversely raise the centre of leverage as does horizontal, circumferential bone loss: therefore both patterns should be judged on an individual basis
- (3) the possible variations in roentgenographic techniques should be evaluated before drawing conclusions on bone loss
- (4) definite prognostic rules on amount of bone loss should not govern all cases (i.e. 1/2 bony support lost, tooth must be extracted - this is not a sound clinical rule)
- (5) the alveolar crest is an important point to note in determining the progress and the activity of the disease as is also the diameter of the periodontal membrane space.

4. The activity of the disease

- (a) the more active the disease process, the poorer the prognosis

Note:

- (1) the use of serial records, roentgenograms and models in this regard is advocated
- (2) the importance of retaining past records for this purpose is emphasized
- (3) the state of the alveolar crest, the periodontal membrane space and the alveolar bone proper (lamina dura) should be noted

5. The amount and type of inflammation

- (a) the more pronounced the inflammation (within reason) the BETTER the prognosis
- (b) the more sharply demarcated the inflammation, the BETTER the prognosis

6. The state of the oral hygiene

- (a) the better the present oral hygiene, the BETTER the prognosis

Note:

the state of the oral hygiene is frequently an indication of the patient's appreciation of dentistry, of dental care and of his interest in himself, although at the same time, simultaneous presence of good oral hygiene and presence of chronic destructive periodontal disease are discouraging.

7. Etiology

- (a) the more conspicuous the etiology, the BETTER the prognosis
- (b) the more local etiology present, the BETTER the prognosis
- (c) the better the correlation between local etiology and the destructive process, the BETTER the prognosis
- (d) the greater the possibility of removing the etiology, the BETTER the prognosis

Note:

- (1) periodontal etiology is seldom single
- (2) a "cause and effect" relationship should always be sought and its discovery enhances the therapeutic possibilities of the case

8. The incidence, type and pattern of pocket formation

- (a) the greater the pocket area (on tooth or teeth), the poorer the prognosis
- (b) the deeper, the more narrow, and the more tortuous the pocket, the poorer the prognosis
- (c) the greater the ulceration of the pocket wall, the poorer the prognosis

Note:

- (1) a distinction is made between "true" and "pseudo" pocket formation depending on the site of the epithelial attachment on the tooth at the bottom of the pocket
- (2) the amount of pathology in the adjacent soft tissue is presently regarded as being of as much clinical significance as the actual pocket depth
- (3) a complication is added if the labial (or lingual) pocket is so deep as to extend beyond the attached gingiva and involve the adjacent muco-buccal fold (or the floor of the mouth)
- (4) the "intra-bony" pocket lends itself to any attempt at re-attachment much better than does the gingival pocket
- (5) the "gingival" or "supra bony" pocket lends itself to uncomplicated surgical eradication much better than does the intra-bony pocket

9. The involvement of the bifurcation or the trifurcation

- (a) the deeper the bi - or trifurcation involvement, the poorer the prognosis
- (b) the wider the root "flare" from the bi - or trifurcation, the BETTER the prognosis
- (c) the higher (or lower) the vestibular roof (or floor), the BETTER the prognosis
- (d) the more solitary the affected tooth, the BETTER the prognosis

Note:

- (1) all bi - and trifurcation involved teeth should not be condemned "per se", as has been the inclination in the past
- (2) nevertheless, the treatment of teeth with such involvements should be undertaken reservedly and the placement of extensive restorations is usually contra-indicated in teeth so affected

10. The mobility of the tooth

- (a) the more mobile the tooth, the poorer the prognosis

Note:

- (1) determine the cause of tooth mobility and whether the cause can be removed; there are several causes such as extrinsic stress, occlusal prematurity, lack of bony support and even therapeutic procedures; some of these can be removed easily
- (2) because of the variation in cause of mobility, it is not sound to condemn a tooth solely because it displays an arbitrarily selected degree of mobility (+, ++ or +++)
- (3) however, when a tooth may be depressed in its alveolus, the outlook is hopeless

11. The state of the occlusion and the musculature

- (a) the better the occlusion, the BETTER the prognosis
- (b) the more centric and eccentric prematurities, which can be removed by selective grinding, the BETTER the prognosis
- (c) the more harmoniously flat the incisal guidance (anterior) and cuspal inclines (posterior) are or can be made by grinding and/or by restoration, the BETTER the prognosis
- (d) the more teeth there are in occlusion in full centric closure and in protrusion excursion, the BETTER the prognosis x
- (e) in lateral mandibular excursion, the more teeth there are in occlusion on the functioning side and the fewer teeth there are in occlusion on the non-functioning (balancing) side, the BETTER the prognosis (certain exceptions to this rule however) x
- (f) the greater the possibility of decreasing adverse functional loads and their direction of application, the BETTER the prognosis (of affected teeth)

12. The presence of deleterious oral habits

- (a) the fewer the deleterious oral habits, the BETTER the prognosis
- (b) the greater the probability of breaking these habits, the BETTER the prognosis

Note:

- (1) included herein such things as sucking, biting and chewing the tongue, cheek, lips and extraneous objects, clenching and grinding of the teeth

x While the term "the more teeth there are in occlusion..." is used in both (d) and (e), in reality it would be more correct to say "the more points of teeth there are in occlusion..." In this interpretation, points of opposing teeth should contact one another in preference to broad surface contacts (i.e. facets). Judiciously grinding the borders of a facet will usually produce the more desirable point to point relationship.

- (2) the use of tobacco is another habit which may act as a local factor in periodontal etiology and disease: it is not generally regarded as an oral habit, however

13. The functional demands on the affected tooth

- (a) the less the future functional demand upon the tooth, the BETTER the prognosis
- (b) the greater the possibility of decreasing adverse functional loads and the direction of their application, the BETTER the prognosis

Note:

- (1) a periodontium which has undergone chronic destructive periodontal disease seldom shows improvement when it is subjected to increased function - even after "successful" therapy
- (2) special care should be exercised in appraising the periodontal status of teeth adjacent to an edentulous space
- (3) the decrease in adverse loading and direction thereof may be achieved through selective grinding and/or restorative dentistry (see footnote under 11 (e) and (d)).

- (4) the wisdom and the necessity of adequately splinting these teeth should be obvious

14. The aesthetic demands on the affected tooth

- (a) the greater the aesthetic demand on the tooth, the poorer the prognosis

Note:

- (1) the need for aesthetic consideration imposes an undesirable element of compromise in many treatment procedures

15. The form of the affected tooth and gingiva

- (a) the larger and longer the clinical root surface, the BETTER the prognosis
- (b) the smaller and shorter the clinical crown (in relation to the clinical root), the BETTER the prognosis
- (c) the more ideal the occlusal and proximal tooth form, the BETTER the prognosis
- (d) the wider the band of attached gingiva, the BETTER the prognosis

Note:

- (1) the assumption here is that the larger clinical root will present a greater area for bony attachment, and for support to that root through the medium of the periodontal membrane
- (2) in addition, the longer the clinical crown, the longer will be the undesirable coronal lever arm and the shorter will be the desirable root lever arm
- (3) the tapering root is not as desirable as is the bulbous root

16. The position of the affected tooth

- (a) the better aligned the tooth in the arch, the BETTER the prognosis
- (b) the closer together the roots of adjacent affected teeth, the poorer the prognosis
- (c) the better the proximal support through proper tooth contact points, the BETTER the prognosis

Note:

- (1) continual food impaction and difficulty in maintaining oral hygiene are problems created by tooth malposition
- (2) when the roots of affected teeth are in close approximation, there is less interradicular bony support

17. The presence of other dental disease

- (a) the more prevalent and the more active the other dental diseases, the poorer the prognosis

Note: this point refers particularly to co-existent caries and/or periapical lesions.

18. The present and future status of the restorative dentistry

- (a) the better the quality of present (and future) restorative dentistry, the BETTER the prognosis

18. (b) the greater the possibility of inserting fixed partial denture prosthesis in edentulous areas, the BETTER the prognosis

Note:

- (1) in practice, the fixed appliance is generally preferable, if for no other reason than it usually involves far less compromise with the ideal
- (2) the past restorations of the patient often are of value in evaluating cases for treatment as they provide a fair index of past dental services and appreciation thereof

19. The general health of the patient

- (a) the better the patient's general health, the BETTER the prognosis

Note:

- (1) this section includes a myriad of systemic derangements such as debilitating diseases, clinical and subclinical dietary and nutritional deficiencies, endocrinopathies, psychosomatic states, inherent, congenital or familial weaknesses
- (2) attempts to correlate certain periodontal diseases with specific systemic conditions or derangements have been disappointing to date
- (3) the "chronically ill" patient is not a good periodontal risk

20. The age of the patient

- (a) the younger the patient, the poorer the prognosis in CHRONIC DESTRUCTIVE PERIODONTAL DISEASE

Note:

- (1) this apparently paradoxical statement is based on the belief that the young patient who evidences chronic destructive disease also evidences a lack of resistance to the pathogenic process at an age when resistance to attack should be high
- (2) acute inflammatory conditions are much more prevalent in the young than they are in the adult: prognosis in these acute conditions is good
- (3) chronic degenerative diseases are rare in childhood

21. The reaction to initial simple treatment

- (a) the more favourable the reaction to initial treatment, the BETTER the prognosis

Note:

- (1) there is considerable merit in embarking on a program of mild, non-time consuming therapy with the idea of critically observing the result; an unfavourable result would probably rule out further treatment

Note:

- (2) under the foregoing regimen, a dramatic return to a more normal gingival color, gingival contour and gingival density would indicate favourable response, as would diminution of haemorrhage, mobility and pain; marked diminution of "true" and long-standing pocket depth is not likely under the suggested regimen however

22. The rate and type of deposition of accretions and concretions

- (a) the more rapid the deposition of calculus and stain, the poorer the prognosis
- (b) the more tenacious the calculus and stain, the poorer the prognosis

Note:

- (1) this rapid deposition may be due to one or more of a series of unfavourable circumstances; it may be due to extrinsic and/or inherent factors; in any event the end result is not good for the periodontium
- (2) the amount and location of concretions and accretions along with some knowledge of the patient's previous professional history can be most revealing and helpful in determining treatment plans and prognosis

C. Summary of the Objective Questions of Primary Interest

1. Is the amount and pattern of destruction minimal to moderate?
2. Is the disease in a passive state?
3. Is recognition and removal of the etiology probable?
4. Does the local etiology correlate with the pattern of disease and destruction?
5. Are the foreseeable demands on the tooth (or arch) reasonable?

THE MORE AFFIRMATIVE ANSWERS, THE BETTER THE PROGNOSIS

III. Summary and Conclusion:

Of all the responsibilities in the field of clinical periodontology few are more difficult or rewarding than the successful prediction of the outcome of treatment. This success can usually be achieved only by a prior and thorough study of all the inter-related objective and subjective findings in a case. As an aid to this study, a series of points and questions of prognostic interest have been listed and discussed briefly herein. Some attempt has been made to assign priorities in these matters and it is felt that the judicious use of the five objective and five subjective questions can frequently provide an honest answer to the overriding query so often made in everyday practice, "How long can I expect to keep my teeth?"

DENTAL OFFICER SUBSIDIZATION PLAN TRAINING

SUMMER PRACTICAL PHASES

O/Cdt S.H.B. Crackower

Lt-Col S.G. Bagnall, CD., D.D.S.

Lt-Col D.H. Protheroe, DFC., CD., D.D.S., MPH.

PHASE I

On the 3rd of June 1964, twenty-seven dental officer cadets representing the seven dental schools in Canada arrived at the Royal Canadian School of Infantry, Camp Borden for an extensive ten-week basic training course.

The main objectives of the course were to develop leadership qualities and physical fitness. To help meet the latter, every morning at 0550 hours the cadets were hurried outdoors for exercises which at the least proved successful in making everyone aware of the new day.

Early in the course the cadets began training for a six mile forced march which, along with rifle classification, gave them an opportunity to compete for the Commandants' Trophy. During this march the instructors and officers were able to assess the stamina and leadership of the Cadets in getting the platoon to the finish line. The dental platoon completed the march in seventy-five minutes having no drop-outs. Needless to say, the staff was pleased with this demonstration.

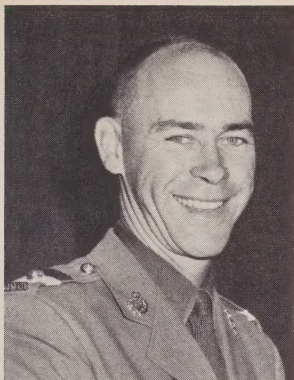
As a part of training the cadets were given instruction in handling and firing of several weapons. Among these were the FN Rifle C2, sub-machine gun and Browning automatic pistol. Many cadets had never fired before coming to the Infantry School but classified satisfactorily with a minimum of practice.



O/Cdts: DGJ Chaussee, PA Wood, DL Poy
Ssgt Walters (Instructor RCS of I)

Another important feature of the training was Fieldcraft in which instruction was given in personal camouflage and concealment, judging distance, fire control orders, obstacle crossing, movement by day and night, stalking, night observation and sentry duty.

A part of the course relating to map reading and use of the compass gave the cadets the opportunity for actual application of instruction such as assessing shape of ground, giving and reading grid references, measurement of distances and the taking of bearings.



O/Cdt T.J. Erskine
University of Alberta

Honour Cadet-Phase I

Track and field sports were the main extra-curricular activities enjoyed by cadets. In a number of events camp and school records were broken by the dental participants bringing honours to the Royal Canadian School of Infantry as well as themselves.

Towards the termination of this ten-week arduous programme two field exercises "Wind Up" and "Red Gauntlet" were held. Each was designed to assess the cadets practical application of the instruction presented.

As the cadets looked back on this military training they were able to recognize its true value. These cadets had successfully proven their merit in fulfilling all tasks that were assigned. They developed a sense of loyalty to their leaders and assumed responsibilities which they carried out with alacrity and enthusiasm. They could be justly proud of doing a fine job in developing within themselves the qualities befitting a Canadian Army Officer.

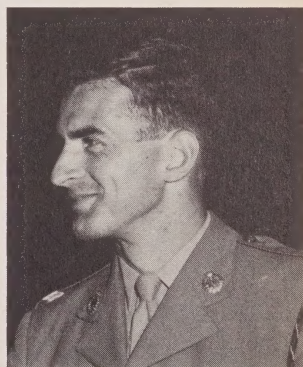
PHASE II

The summer program for second practical phase training is designed to familiarize candidates of the Dental Officer Subsidization Plan with the role and organization of the Royal Canadian Navy and the Royal Canadian Air Force and to initiate their training in military dentistry. This ten-week period is divided into three parts in order that the cadets have the opportunity to receive instruction from RCN and RCAF personnel. Training for this summer was arranged to include three weeks with the RCAF, a three-week course in Camp Borden at the RCDC School, and the remaining time with the RCN at HMCS Cornwallis and HMCS Stadacona.

For the second consecutive year the RCAF indoctrination training was conducted at 1 Air Division in Europe. This opportunity to see the operational side of the RCAF under active service conditions awarded the dental officer cadets with an unforgettable experience.

The tour for this past summer was preceded by a lecture series at the RCDC School in Camp Borden. The initial briefing was conducted by the RCAF and included lectures on the organization and administration of the RCAF along with tours of RCAF Station Camp Borden and the Institute of Aviation Medicine in Toronto. This preparatory groundwork gave the candidates the necessary background to enable them to understand and appreciate more completely the composition and role of the Air Division.

On Monday the 8th of June the group consisting of 15 officer cadets and Lt-Col Bagnall, the Conducting Officer, proceeded to RCAF Station, Trenton for the overseas flight by Yukon aircraft to 1 Wing RCAF Station, Marville, France, arriving mid-morning on the 9th of June.



O/Cdt J.E. Stansfield
University of Toronto
Honour Cadet-Phase II



Arrival of Phase II Cadets
In France

The following day the group travelled to 1 Air Division Headquarters in Metz for a briefing of 1 Air Division organization and its role within the structure of NATO. Group Captain RL Denison DFC, CD, representing the AOC, A/V/M DAR Bradshaw, extended a cordial welcome.

For the next few days instructional programs with respect to the coordination between the various sections and their functions were arranged at 1 Wing in Marville, France and 3 Wing in Zweibrücken, Germany. At this time the CF 104 aircraft was shown and explained in detail. The instruction was informal with ample time to see the CF 104 in various stages of assembly including routine flying operations.

The remaining time was used for travel and sightseeing. A one day tour of the Verdun battlefields provided a highlight of the trip. The RCAF Education Officer from 1 Wing accompanied the group for this particular day and vividly portrayed the history of this well known World War I battle area.

A memorable bus tour including visits to six different countries was arranged by Lt Col LG Craigie, the Commanding Officer of 35 Field Dental Unit. The tour started from Marville, France, to Luxembourg and then on to an overnight stop in Heidelberg. Following a tour of this historic city the next day the group travelled on to Munich with a side trip to Dachau to visit that infamous World War II extermination camp.

A two day stop in Munich gave everyone the opportunity to see a great deal of the city and to visit well known places. Following the stay in Munich, overnight stops were made in Garmisch-Partenkirchen, Bavaria, Innsbruck and Felkirch in Austria. Vaduz, the capital city of Liechtenstein was visited while enroute to Zurich, Switzerland. After spending the night on the outskirts of Zurich the group returned to Marville.

The entire tour was unique experience and it would appear, from the comments of the cadets, that there should never be a shortage of volunteers seeking to serve with our dental units in the Brigade Group or the Air Division in Europe.

The tour ended with the return trip from Marville, France to RCAF Station, Trenton on the 26th of June. After a rather slow flight, due to heavy headwinds and a violent thunderstorm, the tired group was met in Trenton by Col AT Roger, CO of 13 Dental Coy, at 0130 hrs on Saturday June 27th.

For the second part of the summer training, 29 June - 17 July, a formal course was conducted at the RCDC School. This time was about equally divided between practical laboratory and clinical procedures plus lectures on pertinent RCDC subjects.

From Camp Borden the cadets proceeded to HMCS Cornwallis, the new entry training base in Nova Scotia, for two weeks practical and theoretical training with the RCN. The last week of training, including a day at sea, was in HMCS Stadacona, Halifax, following which, the cadets returned home prior to start of fall studies at their various universities.

This second phase training program provides the cadets with an informative, and interesting summer and gives them an opportunity to see the RCN and RCAF performing their respective operational roles, prior to serving with either of these services or the Army following graduation.

PHASE III

Third phase summer training for dental undergraduates enrolled in the Dental Officer Subsidization Plan was conducted in two parts at the RCDC School, Camp Borden. Part One, which consisted of clinical and dental survey training, was carried out during the month of June. Part Two, which was a formal course in military and clinical subjects was held in July.

Candidates attended from all Dental Faculties except the University of British Columbia with eight from Dalhousie University, three from the University of Montreal, one from McGill University, two from the University of Toronto, two from the University of Manitoba and seven from the University of Alberta.

Part One (1 Jun - 3 Jul 64)

A challenge was presented to the RCDC School Training Wing Officers because of conflicting courses. However, difficulties often inspire the development of improved plans, such was the case for third phase training.

The objectives of the Part One training were threefold:

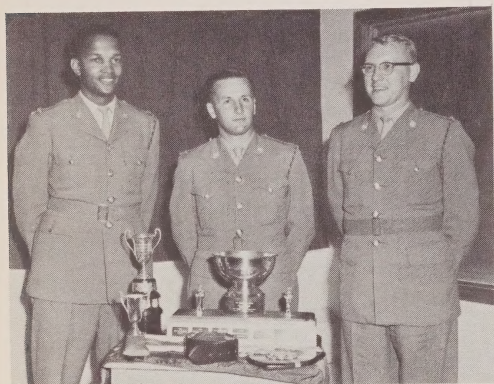
1. To provide candidates with experience in performing clinical dentistry in the RCDC.
2. To provide candidates with practical experience in the newer concepts of employing auxiliary dental personnel.
3. To provide candidates with practical experience in conducting dental surveys of military personnel.

The method used was to divide the candidates into four syndicates of five candidates each. These syndicates were the functional units for both clinical training and survey operations. Each syndicate had a syndicate leader and was comprised of two dental officers, two chairside assistants and one roving assistant. Candidates were rotated through these appointments with changes made daily, so that in a five day period a candidate acted as a dental officer for two days, a chairside assistant for two days and a roving assistant for one day. Each syndicate was assigned two operating bays.

In addition to the syndicates, one candidate was assigned duties as a clinic manager. This appointment was also rotated. Briefly, the duties of the clinic manager included: assisting the coordinating officer who was a member of the staff; receiving all incoming patients, controlling the flow of patients and charts to and from the syndicates; recording patient histories as required; collecting and filing charts; and answering the telephone.

The dental survey training was also achieved through use of the four syndicates previously described. All available permanent staff personnel in Camp Borden were given a dental survey examination with the findings recorded on survey nominal rolls. The examinations were conducted by the candidates at unit locations using available space or a mobile dental clinic. When the survey examinations were completed, the syndicates were responsible for compiling the data collected.

It is interesting to note that of the 1400 personnel examined 25 were examined further for suspicious soft tissue lesions. Eight of these required oral cytological screening and three lesions were biopsied.



Award Winners - Phase III

2Lts A.F. Brothers, G.S. Zwicker
and R.F. Cooper

In addition to its value from the standpoint of training and patient welfare, this survey provided a source of interesting patients for the candidates during the remainder of the summer.

It is considered that the method used to conduct clinical and survey training for third phase candidates provided valuable clinical and organizational experience, plus an insight into some of the problems of the dental team from the point of view of both the dental officer and the dental assistant.

Part Two (6 - 31 Jul 64)

Part Two of the third phase summer training programme was a formal course of four weeks' duration. Its purpose was to give training in Special-to-Corps subjects so that

the candidates will be prepared for full-time duty in RCDC clinics without further training following graduation.

The course was similar to those of previous years and included operative dentistry, prosthodontics, oral surgery, public health dentistry, mass casualty care, organization and administration, documentation and treatment policy, dental stores, equipment maintenance, drill and recreational training.

Innovations were, however, introduced into this year's course. For example, the public health dentistry course which included such subjects as the etiology, epidemiology and prevention of dental caries and periodontal disease was given in panel discussion form rather than by lecture. Each discussion group consisted of four or five candidates with a chairman to coordinate the activities within each group. References were provided and each group was responsible for presenting and leading discussion on their assigned subjects. This method proved successful. The candidates displayed keen interest and gave excellent presentations on their assigned subjects. The discussions were lively and it was interesting to see the inter-university rivalry and the variation of viewpoints from the different universities.

Social and Recreational Activities

The candidates brought credit in athletic activities to the RCDC School again this year. In the track and field meet 2lt JP Grise was first in the javelin throw and in the swim meet 2lt Z Tukums placed second in the free style, 2lt EC Wambara was second in the breast stroke and 2lt FH Harreman took third in the back stroke.

One of the most enjoyable evenings of the summer was a stag affair in the Officers' Mess put on by the candidates as a farewell party for the staff and to honour 2lt JP Grise on his forthcoming marriage.

Ceremonial Parade and Awards

The culmination of the third phase summer training was a ceremonial parade and inspection by the Director General of Dental Services. The parade was held this year on 6 Aug with the Band of The Royal Canadian Regiment in attendance.

Brigadier KM Baird took the salute and then inspected the candidates as the band played the Royal Canadian Dental Corps March, following which he congratulated the group for their excellent turnout and drill. Also in attendance were the Commandant and officers of the RCDC School, their ladies and the wives and lady friends of the candidates. In the evening, a very enjoyable all-RCDC Mess Dinner was held in the CFMSTC Officers' Mess with a total of 32 officers attending. The following morning, awards were presented to the outstanding third phase candidates as follows:

Honour Cadet	- 2lt RF Cooper,	Dalhousie University
Runner-Up	- 2lt AF Brothers,	Dalhousie University
Chief Instructor's Trophy	- 2lt GS Zwicker,	Dalhousie University



Brigadier KM Baird is shown with Col GR Covey and the parade commander 2lt AF Brothers, inspecting the Third Phase Candidates

THE ROYAL CANADIAN DENTAL CORPS (MILITIA)

Colonel I.A.L. Millar, CD, QHDS, DDS, FICD

An account of the Militia component of the Royal Canadian Dental Corps is considered timely because of the implications that may result from the recent report of the Committee on Re-Organization of the Militia. The activities and operations of this component have given strength and added prestige to dentistry in the Military. A nucleus of basically well-trained officers and non-commissioned officers has been produced over the years and is available should an emergency arise. Time and effort have been given generously in the highest traditions of the Service and these many part-time soldiers may well reflect with pride on their achievements. It is hoped they are aware of the gratitude that is felt for their support and comradeship in the past and are also aware that an even more interesting and challenging association is anticipated for the future.

Original RCDC Units in The Reserves

Dental units were included for the first time in the peace-time reserve forces when the Canadian Army was reorganized in 1946. During the years between the First World War and the declaration of war in 1939 no permanent element of a dental service had been authorized and representation was limited to a number of dental officers in units of the RCAMC across the country. In 1938 a committee of the Canadian Dental Association had recommended reorganization of the dental corps to meet the requirements of the Canadian Forces of that time. Although the organization was based on a peace-time corps, it was sufficiently inclusive and flexible to meet the emergency in 1939 resulting in the authorization of a Canadian Dental Corps for active service. Undoubtedly the contribution made by the CDC during the war determined in large measure the orders and regulations promulgated in 1946 providing dental establishments in Canada's peace-time defence organization. In this regard, further recognition came in January 1947 when the title "Royal" was granted by His Majesty George VI.

In the immediate post-war Reserve Force the following eight dental companies, patterned after the wartime field dental company, were authorized:

No 1 Company - London, Ontario	No 5 Company - Halifax, Nova Scotia
No 2 Company - Toronto, Ontario	No 6 Company - Winnipeg, Manitoba
No 3 Company - Montreal, Quebec	No 7 Company - Ottawa, Ontario
No 4 Company - Quebec, Quebec	No 8 Company - Vancouver, British Columbia

In addition, two Army dental stores units were authorized at Regina and Calgary. These latter units remained dormant until 1948 when they were activated and redesignated No 9 Army Dental Stores and No 10 Base Dental Stores at Toronto and Montreal respectively (both of these units were later declared dormant).

Additional Units

Meanwhile DGDS had made a survey of the requirement for reserve dental units to give proper representation and had recommended that additional dental companies be authorized.

After considerable staff deliberation, approval was obtained in 1949 to convert No 3 Company in Montreal to a larger establishment because of the two faculties of dentistry in that centre. This provided a base dental company in Montreal originally designated No 15 but later changed to No 39 to avoid confusion with No 15 Company of the Active Force, No 3 Company was relocated in Edmonton. In 1950, after a tri-Service responsibility was designated for the Corps in the reserves, authority was given for the formation of two additional companies, No 9 with Headquarters in Calgary and No 10 with Headquarters in Regina (later relocated to Saskatoon).

Dental Advisory Staff

In 1951 a unit known as the "Dental Advisory Staff" was formed "to facilitate coordination of training and administrative matters within the RCDC (Active and Reserve Forces)." Initially, the unit consisted of 12 officers only, providing one assistant director of dental services (colonel) for each command and one deputy assistant director of dental services (major) for each area. Their primary purpose was to effect liaison between members of the dental profession and Reserve and Active Force dental units. Later, 12 corporal clerks were added to take care of filing and correspondence. Because the officers selected to fill the appointments were professionally prominent and had extensive military background, their assistance in enlisting suitable personnel and in coordinating the planning of unit activities was welcomed by the companies.

Reorganization of the Reserve Units

This organization of 14 RCDC Reserve Force units with an overall total establishment of 238 officers and 762 other ranks remained unchanged until 1954. An additional unit was then authorized in Eastern Command with Headquarters in Saint John, N.B. and the two stores units became dormant. This came about as part of the reorganization of the Reserves into Militia Groups following the Kennedy report. At the same time dental companies were formed into training units and renumbered as follows:

No 50 Dental Unit - Halifax, NS	No 56 Dental Unit - Toronto, Ont
No 51 Dental Unit - Saint John, NB	No 57 Dental Unit - Winnipeg, Man
No 52 Dental Unit - Dormant	No 58 Dental Unit - Regina, Sask
No 53 Dental Unit - Montreal, PQ	No 59 Dental Unit - Calgary, Alta
No 54 Dental Unit - Ottawa, Ont	No 60 Dental Unit - Edmonton, Alta
No 55 Dental Unit - London, Ont	No 61 Dental Unit - Vancouver, BC
	Dental Advisory Staff

Activation of Units

In 1946 the first step in activating the dental companies was taken by the Director General of Dental Services and Command Dental Officers by ascertaining if selected ex-Corps officers would be willing to accept appointments as commanding officers. It must be appreciated that at this particular time veterans were fully occupied re-establishing their civilian activities. Nevertheless, out of a sense of loyalty the men approached assumed the responsibility for recruiting; for obtaining suitable accommodation; for arranging innumerable administrative details and for producing an efficiently functioning unit. The difficulties encountered are recorded in progress reports and general correspondence. Certainly, each commanding officer had his own peculiar problems to surmount. The fact that the dental companies were self-contained or self-accounting units made them completely responsible for their own administration and internal economy.

The publication of Standing Orders and Part 1 and Part 2 Orders had to be initiated and to do this, equipment and supplies such as stationery, typewriters, furniture, etc. had to be procured. While arrangements for a functioning headquarters on the A and Q aspect were underway it was essential that activities be designed to engender interest and enthusiasm to aid further recruiting. Therefore the immediate necessity was to recruit key personnel to fill appointments in the headquarters. Once the headquarters was well established additional personnel could be approached to meet the requirement for a definite program of military and social events. Dental officers as they were recruited could be attached to other Reserve Force units, RCN reserve divisions and RCAF auxiliary units if they resided distant from the headquarters. The following quotation from a circular letter of 1948 is indicative of the drive made by commanding officers during the formative period:

"The Reserve Dental Companies show a wide difference in activity from both the recruiting and the training standpoint. One company commander sent out a letter to all Reserve Force Units in his area suggesting that the Unit Commander might approach any dentist known personally to him or any of his officers, with a view to having such dentist appointed to the dental company and attached to the unit. The letter also pointed out that should a unit desire the attachment of a dental officer, without having any particular preference, the OC dental company will endeavour to supply an acceptable dental officer for attachment. Another company commander has arranged through Command to send seven Dental Officers to Summer Camp in 1948, covering the period 4 Jul 48 to 7 Aug 48 inclusive. These officers will proceed to Summer Camp with the units to which they are attached and will be supplied with transportation through these units. Dental Officers will follow the syllabus of training laid down by Command for Summer Camps 1948. The OC and Adjutant of the dental company will also attend summer camp at some time during the period covered."

Training

Training has been the all-important task of the Reserves. It is a continuing commitment demanding all the aggressiveness and imagination that can be devoted to it.

The need to improve training of the Reserve Force had been realized in 1946. Such measures as the provision of better accommodation and equipment and the stressing of the "one Army" concept were introduced. Then in 1948 administrative and training officers and non-commissioned officers of the Active Force were attached to Reserve units to provide full-time assistance. Each dental unit was authorized to have an Active Force sergeant attached whose trade could be dental technician (laboratory), dental assistant, storeman clerk or clerk administrative. An Active Force establishment of 12 sergeants was authorized to provide the personnel.

World Conditions

Changes in organization and training emphasis were required from time to time to conform to altering world conditions which imposed new military requirements. This was notably true during the late 1940s, all through the 1950s and into the early years of 1960. Although a nuclear war was unthinkable a divided world made it a distinct possibility. The Great Powers developed missiles and anti-missiles. They increased their arsenals to have at their command a nuclear capability so devastating that it would act as a deterrent against attack or action to trigger war.

At the same time, there was unrest among groups of nationals throughout the world which created trouble spots where the Great Powers had vested interests of a political or economic nature. Alliances between East and West and between countries were formed for mutual military benefits. New defence policies emerged and were reflected within countries by re-organization of the Forces to meet altered roles. In Canada, following the recommendations of a committee composed of retired Regular officers, such circumstances caused the major re-organization of 1954 already mentioned. This re-named the Force the Canadian Army Militia and authorized 27 Militia Group Headquarters to replace the 1946 organization based on field force formations. In 1959, when the Army was assigned a role in National Survival, the 1954 organization remained and served adequately. The most recent statement on defence policy, the White Paper tabled in Parliament, March 1964, may be expected to result in further organizational changes since the training priority has already been amended.

RCDC Association

In 1947 a new source of help for dental units appeared when the Defence Dental Association, (changed in 1953 to the Royal Canadian Dental Corps Association) was formed. Although former dental officers were eligible for membership in the Defence Medical Association, a group of former RCDC officers felt a separate association was required. The object of the association is "to promote and improve esprit-de-corps and general efficiency of the Defence Dental Services; to cooperate with all other arms of the service for the promotion of general efficiency." The membership is representative of all Canada and it receives an annual grant from the Department of National Defence. There are provisions in the Constitution for branches and sub-branches in the provinces with each branch sending one official delegate to the annual meeting. Annual meetings have been held in Montreal, Winnipeg, Ottawa and Camp Borden since 1947. Representatives from the RCDC Association also attend the annual meeting of the parent body which is the Conference of Defence Associations. The Association has supported military dentistry in every way. At the annual meetings discussions were held between commanding officers on improved and standardized RCDC (Militia) training programs. Resolutions put forward annually resulted in keeping issues in current files and when circumstances were right for governmental decision, the direction and support of the Association was most valuable.

The Development of a Training Program

The principal aim in the training of dental units was to prepare them to function as part of the field force. They had to be practised in movement by road, camouflage, employment in the field, communications, security and many other skills pertaining to field operations. In addition RCDC personnel had to be familiar with the organization and customs of other units to which they might be attached and because of the tri-Service role, with establishments of the RCN and RCAF. There were qualification requirements for ranks and trades which had to be included, and indoctrination into aspects peculiar to a military dental service. In general, two categories of training were required, i.e. Common to Corps training or training which is required by all, and Special to Corps training which is required for units to function in their own particular role. The year was divided into an individual training period from September to June when Special to Corps subjects were stressed and a collective training period during the summer months when units and individuals attended summer camps to apply their skills by participation in field exercises.

Dental units developed programs along these lines and were able to make a steady but gradual impact in filling establishment positions with qualified personnel. DGDS made dental stores available to units on demand for trades training. However it soon became evident that while training at the local headquarters for dental assistants could achieve a satisfactory standard, this did not apply to dental technicians. Attendance on special courses was authorized to meet qualification requirements and in certain categories for candidates who would be employed in an instructional capacity on return to their units. Professional interest was stimulated by unit officers presenting papers covering all aspects of dental services in a military organization. The wide range of subjects available led to many fine professional papers. Social events such as mess dinners, fun nights, dances and Christmas parties played an important part in unit efficiency and "esprit-de-corps".

Summer Camps

Although RCDC personnel were eligible to attend summer camps with other units as an attached dental detachment, it was clear that more training value was achieved by unit attendance, and even more so by attendance at RCDC regional or national camps. Accordingly, units from Western Command, and later units from Prairie Command, concentrated at Vernon, B.C. and Camp Sarcee, Alta, units from Central Command at Camp Niagara Ont and units from Quebec and Eastern Commands at Camp Utopia, N.B.



A group of Militia Officers at Summer Camp

The manner in which these camps were conducted varied considerably between commands but at each, control was vested in an officer of the RCDC, i.e. either the Command Dental Officer or the Assistant Director of Dental Services (Advisory Staff). Those who attended these regional camps will recall the experience with pleasure and a feeling of accomplishment. An interesting and instructive variation from Camp Sarcee occurred in 1957 for the units of Western and Prairie Commands when they joined in HMCS Naden for RCN indoctrination. When regional camps were not held attendance

varied from the majority of the unit down to one or two individuals.

National Survival

In the early years the Army role in National Survival had been to assist the Civil Defence organizations but in 1959 it was decided to give the Army complete responsibility for specific tasks in civil defence. This brought about radical changes in militia organization and training. In the RCDC trades training was restricted to that of the RCDC Casualty Aide Man and officers' training was devoted to the role of the dental officer in the Management of Mass Casualties. Mobile Support Columns were organized in commands for re-entry operations and RCDC units were included in the "order of battle."

In order to attain as quickly as possible an efficient standard of proficiency in this new role, arrangements were completed to conduct training in the summer of 1959 for militia officers by attachment to the RCDC School for one week, and for militia other ranks by attachment to Regular Force dental companies for one week. Attendance was limited in the case of officers to sixty, based on five per militia dental unit and that of other ranks to thirty-six, based on three per unit. The same training was carried out in 1960 with the number attending reduced to forty officers and eleven other ranks. It was continued in 1961 for officers and two non-commissioned officers per militia unit were attached to the RCDC School rather than to Regular Force companies. At the local headquarters all ranks were required to obtain First Aid certificates and training of the RCDC Casualty Aide Man increased the capability of other ranks well beyond that of a "first aider." Week-end exercises directed by Militia Groups in commands gave an opportunity to apply the training under simulated disaster conditions.

Currently the revised training priority has downgraded National Survival training and militia units will stress corps military training. Thus programs now under preparation may well bear a nostalgic similarity to those produced in the late 1940s.

General Efficiency Competition

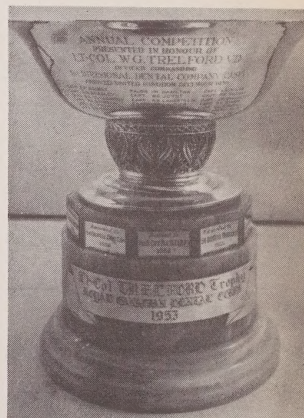
The General Efficiency Competition RCDC (Militia) has consisted since 1951 of an annual inspection of militia dental units by an officer from the Office of the Director General of Dental Services. Dr. Stephen A. Moore, who was a member of the Canadian Dental Association Committee concerned with the re-organization of the Corps prior to the Second World War and the first Honorary Lieutenant-Colonel of the Corps, donated the first trophy in 1950 with the object of stimulating competition and intensifying efforts on the part of all ranks in the interests of increasing efficiency.



Moore Trophy



The Saskatchewan Association Memorial Trophy



The Trelford Trophy

The formal presentation of the trophy for competition took place at a luncheon meeting of the Defence Dental Association in Toronto on 16th May 1950. A marking guide to serve as a basis to judge the competition was prepared after consultation with all concerned and authority was obtained to conduct an annual inspection of units entered in the competition. The Moore Trophy was awarded to the unit judged most efficient.

In 1954 a second trophy, the Trelford Trophy, was included in the competition, to be awarded to the unit judged to be runner-up. This trophy was donated by former officers of No 1 Company CDC in honor of Lieutenant-Colonel W.G. Trelford VD, who commanded that unit as the first dental unit to proceed overseas in the Second World War.

The third trophy, the Saskatchewan Dental Association Memorial Trophy, was donated in 1955 by the Saskatchewan Dental Association in memory of its members who made the supreme sacrifice in the Second World War. It was put into the competition for presentation to the militia unit judged to be the most improved in general efficiency during the training year.

An added incentive for the competition was donated in 1954 and 1955 by the RCDC Association in the form of a cash award of \$75.00 to the unit securing the highest standing and \$25.00 to the unit securing the second highest standing.

Conclusion

Some of the events and circumstances pertaining to the component of the RCDC in the Canadian Army Militia have been reviewed. A large part of the profession, representative of all Canadian provinces, has played an important part throughout their militia affiliation in preserving national unity and strength. Units have been well-motivated, well-trained and well-led. This combination is ideal to meet any future situation. In commemorating the 50th Anniversary of the Corps in 1965, it is to be remembered that the activities of the personnel of this component represent a large portion of the Corps history.

Appendices

1. RCDC (M) Commanding Officers 1946 - 1964
2. Dental Advisory Staff 1951 - 1964
3. RCDC (M) General Efficiency Competition Winners
4. RCDC (M) Queen's Honorary Dental Surgeons

RCDC (M) Commanding Officers 1946 - 1964

No 50 Dental Unit - Formerly 5 Coy Halifax, NS

Lt Col WG Dawson	1946 - 1949	Lt Col JR Vaughan	1949 - 1952
Lt Col JE Merritt	1952 - 1955	Lt Col FC Fennell	1956 - 1959
Lt Col GC MacLeod	1959 - 1961	Lt Col JE Hallett	1961 - Present

No 51 Dental Unit - New Unit eff 1954 Saint John, NB

Lt Col DT Wilson	1954 - 1958	Lt Col GL Ramsay	1958 - 1960
Lt Col HF Bonnell	1960 - Present		

No 52 Dental Unit - Dormant eff 1959 Formerly 4 Coy Quebec, PQ

Lt Col A	Moisan	1946 - 1950	Lt Col JB	Lachance	1954 - 1956
Lt Col CB	Crutchfield	1956 - 1959			

No 53 Dental Unit - Formerly 3 Coy, 15 Coy and 39 Base Dent Coy, Montreal, PQ

Lt Col LE	Kent	1946 - 1948	Lt Col KC	Berwick	1948 - 1949
Lt Col NL	Donnigan	1949 - 1951	Lt Col DW	Henry	1951 - 1955
Lt Col PCR	Asselin	1955 - 1959	Lt Col AJ	Gervais	1959 - 1961
Major SJ	Gouroff	1961 - 1963	Lt Col JRM	Gourdeau	1963 - Present

No 54 Dental Unit - Formerly 7 Coy Ottawa, Ont

Lt Col WH	Smith	1946 - 1950	Lt Col HR	McLaren	1950 - 1954
Lt Col GK	Clark	1954 - 1955	Lt Col CE	Woods	1956 - 1959
Lt Col HJ	Chartrand	1960 - 1963	Lt Col TW	Lesage	1963 - Present

No 55 Dental Unit - Formerly 1 Coy London, Ont

Lt Col GL	Strachan	1947 - 1949	Lt Col HL	Windrim	1950 - 1954
Lt Col RL	Clayton	1955 - 1958	Lt Col AJ	Harris	1959 - 1963
Lt Col JD	McLean	1963 - Present			

No 56 Dental Unit - Formerly 2 Coy Toronto, Ont

Lt Col LA	Kilburn	1946 - 1948	Lt Col GL	Frawley	1948 - 1950
Lt Col DHS	MacDonald	1950 - 1954	Lt Col NL	Simon	1954 - 1958
Lt Col AZ	Henry	1958 - 1962	Lt Col MC	Parks	1962 - Present

No 57 Dental Unit - Formerly 6 Coy Winnipeg, Man

Lt Col JE	Abra	1946 - 1949	Lt Col TJS	Cooke	1949 - 1952
Lt Col JL	Warriner	1952 - 1956	Lt Col WG	Campbell	1956 - 1960
Lt Col MJ	Snidal	1960 - Present			

No 58 Dental Unit - Formerly 10 Coy Regina, Sask

Lt Col HS	Locke	1950 - 1954	Lt Col P	Rabatich	1954 - 1958
Lt Col A	Mintz	1958 - Present			

No 59 Dental Unit - Formerly 9 Coy Calgary, Alta

Lt Col EE	Groff	1950 - 1951	Lt Col CS	Lea	1951 - 1953
Lt Col CM	Johnson	1953 - 1957	Lt Col JS	Goodfellow	1957 - 1959
Lt Col DL	Thompson	1959 - 1961	Lt Col GN	Findlay	1961 - 1963
Lt Col GN	Locke	1963 - Present			

No 60 Dental Unit - Formerly 3 Coy Edmonton, Alta

Lt Col WE	Addinell	1949 - 1950	Lt Col WR	Stuart	1950 - 1952
Lt Col WS	Murray	1952 - 1955	Lt Col GE	Decker	1955 - 1958
Lt Col AD	Fee	1958 - 1960	Lt Col SG	Geldart	1960 - Present

No 61 Dental Unit - Formerly 8 Coy Vancouver, BC

Lt Col HA Simmons	1946 - 1948	Lt Col FA Smith	1948 - 1952
Lt Col IG MacKenzie	1952 - 1958	Lt Col FK Currie	1958 - 1961
Lt Col PL Rondeau	1961 - Present		

No 9 Army Dental Stores - Toronto, Ont

Major RC Cullington	1949 - 1950	Major WT Gildner	1950 - 1954
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No 10 Base Dental Stores - Montreal, PQ

Major JG Lynch	1950 - 1954
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Dental Advisory Staff 1951 - 1964

Eastern Command Advisory Staff

Col JF Edgecombe	ADDS	1951 - 1959
Col JE Merritt	ADDS	1959 - Present

New Brunswick Area Advisory Staff

Lt Col JE Merritt	DADDS	1955 - 1959
Lt Col GL Ramsay	DADDS	1960 - Present

Quebec Command Advisory Staff

Col LE Kent	ADDS	1951 - 1956
Col DW Henry	ADDS	1956 - Present

Eastern Quebec Area Advisory Staff

Lt Col JB Lachance	DADDS	1956 - Present
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Central Command Advisory Staff

Col CL Strachan	ADDS	1951 - 1956
Col HR McLaren	ADDS	1956 - 1962
Col CE Woods	ADDS	1962 - Present

Eastern Ontario Advisory Staff

Lt Col HR McLaren	DADDS	1954 - 1956
Lt Col CE Woods	DADDS	1960 - 1962

Western Ontario Area Advisory Staff

Lt Col HL Windrim	DADDS	1955 - 1960
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Prairie Command Advisory Staff - Designated Man Area Dent Advisory Staff 1959

Col JP Whyte	ADDS	1951 - 1958
Col TJS Cooke	ADDS	1958 - 1963

Western Command Advisory Staff

Col	WE	Addinell	ADDS	1951 - 1955
Col	CS	Lea	ADDS	1955 - 1960

General Efficiency Competition Winners 1951 - 1964

<u>Year</u>	<u>Moore Trophy</u> (Winner)	<u>Trelford Trophy</u> (Runner-Up)	<u>Saskatchewan Trophy</u> (Most Improved)
1951	3 Coy Edmonton		
1952	9 Coy Calgary		
1953	1 Coy London		
1954	50 Dent Unit Halifax	57 Dent Unit Winnipeg	
1955	57 Dent Unit Winnipeg	54 Dent Unit Ottawa	54 Dent Unit Ottawa
1956	54 Dent Unit Ottawa	50 Dent Unit Halifax	51 Dent Unit Saint John
1957	50 Dent Unit Halifax	54 Dent Unit Ottawa	60 Dent Unit Edmonton
1958	50 Dent Unit Halifax	60 Dent Unit Edmonton	61 Dent Unit Vancouver
1959	50 Dent Unit Halifax	54 Dent Unit Ottawa	51 Dent Unit Saint John
1960	50 Dent Unit Halifax	55 Dent Unit London	61 Dent Unit Vancouver
1961	61 Dent Unit Vancouver	57 Dent Unit Winnipeg	56 Dent Unit Toronto
1962	60 Dent Unit Edmonton	61 Dent Unit Vancouver	60 Dent Unit Edmonton
1963	60 Dent Unit Edmonton	57 Dent Unit Winnipeg	54 Dent Unit Ottawa
1964	57 Dent Unit Winnipeg	60 Dent Unit Edmonton	55 Dent Unit London

Queen's Honorary Dental Surgeons

Col	JF	Edgecombe	1953 - 1956	Col	LE	Kent	1956 - 1958
Col	JP	Whyte	1958 - 1960	Col	CS	Lea	1959 - 1961
Col	HR	McLaren	1961 - 1962	Col	DW	Henry	1961 - 1963
Col	GE	Woods	1964 -	Col	JE	Merritt	1963 -

NOTICE

The Third Annual RCDC Bonspiel

All units of the RCDC Regular and Militia are invited to compete for the Wansbrough Trophy during the Third Annual RCDC Bonspiel to be held at the Camp Borden Curling Club on 19 and 20 Feb 65.

Teams may be formed from all ranks, and retired members of the Corps who wish to participate are urged to contact their nearest unit headquarters or the RCDC School.

The committee is most anxious to make this event as representative of the entire Corps as possible and suggests that you plan now to attend. Details and entry forms will be distributed to all units in due course.

The RCDC Golf Tournament

The Second Annual Royal Canadian Dental Corps Golf Tournament for the RCDC Officers' Golf Trophy was held at Camp Borden, September 25 and 26, 1964 under the auspices of the RCDC School. This trophy was presented in 1963 by the officers of the RCDC (Regular) for annual competition among teams of the RCDC (Regular) and Militia Units.



Brigadier KM Baird presents Trophy to winning team

Teams representing six units of the Corps were entered this year. An overall total of fifty-six players participated in the tournament. The winner of the trophy with the low gross aggregate score was No 1 Dental Detachment RCDC, Ottawa. This team comprised of Major AG Andrews and Sergeant WE Hill was captained by Major WH Carter, who also won the individual low gross.

At the Presentation Dinner Saturday evening, September 26, 1964 prizes were distributed to the various winners and runners-up in the tournament.

Individual Winners

Tournament Low Net	- Capt	Cartwright	RCDC(S)	- 137
1st Flight - 1st Low Gross	- WO 1	Batten	RCDC(S)	- 169
1st Low Net	- Capt	Marcil	15 Coy	- 142
2nd Flight - 1st Low Gross	- Brig	Baird	DGDS	- 181
1st Low Net	- Cpl	Walker	RCDC(S)	- 140
3rd Flight - 1st Low Gross	- WO 2	Morse	RCDC(S)	- 203
1st Low Net	- Capt	Dombowsky	12 Coy	- 142
Most Honest Golfer	- Capt	Paturel	12 Coy	- 318

Other flight and novelty prizes were awarded to the following:

Capt Gazo 4 Fd Coy, Major Carmichael 13 Coy, Lt Col Thompson RCDC(S), Lt Bergland 13 Coy, Major Skinner 13 Coy, WO 1 Loken RCDC(S), Capt Parent 15 Coy, Capt Jacob 15 Coy, Lt Col Lauziere 1 Dent Det, Capt Brogan 12 Coy, Sgt Jerome 1 Dent Det, Col Roger 13 Coy, and Capt Kamachi 11 Coy.

DIRECTORATE NEWS

Director General Visits Camp Borden

Brigadier KM Baird, Director General of Dental Services for the Canadian Forces visited the RCDC School, Camp Borden on 5 Aug to interview all Phase 3 candidates of the Dental Officer Subsidization Plan. The following morning Brigadier Baird inspected the cadets on their Marching-Out Parade and was the guest of honour at a Dental Mess Dinner held that evening.

Brigadier Baird was also in Camp Borden 24 Sep to interview all the candidates on the Captain to Major and on the Dt (Lab) Group 3 Courses.

The Royal Canadian Dental Corps Association

Lt Col LG Craigie represented the DGDS at the 16th Annual Meeting of the Royal Canadian Dental Corps Association, held at the RCDC School, Camp Borden, Ontario, 17-18 Sep 64. Honoured guests were Vice-Admiral KL Dyer, Chief of Personnel, Personnel Branch and Brigadier GH Spencer, Chief of Individual Training both of Canadian Forces Headquarters. On the afternoon of 18 Sep, Vice-Admiral Dyer addressed the officers of the Association.

11 DENT COY NEWS

Accommodation

Alterations to No 6 Clinic, RCAF Whitehorse, have now been completed. The reduced clinic size provides an efficient and pleasant lay-out. Some touching-up of the paint is still required plus complete repainting of the laboratory.

Work is progressing satisfactorily at HQ BC Area on the new clinic. Target date for completion of this project is 15 Nov 64.

Reconstruction of the clinic at HMCS Naden will disrupt treatment so mobile clinics have been placed in the drill hall and arrangements completed with Dockyard for the provision of dental services.

Duty Trips

Treatment visits to most of the part-time clinics have kept many of our personnel on the move this fall.

12 DENT COY NEWS

Atlantic Provinces Dental Convention

Colonel RHG Cunningham accompanied by Major RE Dyer and Major AG Taylor attended this Convention in Charlottetown, PEI, 5-8 July.

Civilian Training



Miss Jean Loring

Miss Jean Loring from No 8 Clinic, Halifax NS has recently completed a 22 week course conducted by the Halifax County Dental Society. This followed the "Course for Dental Assistants" as prepared by the Royal College of Dental Surgeons of Ontario in co-operation with the Ontario Dental Nurses and Assistants Association.

Sports

Capt JO Strom spent a very interesting three day period at Lunenburg during the sail boat races which were part of the Annual Lunenburg Exhibition. The garrison craft did not win any prizes but valuable experience in competition was gained for future events.

Capt N Goldberg is a regular with the Stadacona Sailors Football team. So far they have won their first three games.

Farewell Parties

Approximately 40 personnel of 12 Dental Coy attended farewell parties for Major McGaughey and Sgt Fraser (Retired) and Pte Gravel (Released) on 27 Jul 64 and again on 28 Sep 64 for WO 2 Armstrong (Retired). A farewell gift was presented to these personnel by Col Cunningham on behalf of all personnel. We sincerely wish each and everyone the very best in their new environment.

13 DENT COY NEWS

Accommodation

Great improvements have been made recently in two of our clinics. No 2 Clinic at RCAF Station Clinton was moved to new accommodation provided in an Officers' Quarters building and now enjoys greatly expanded facilities. The entire wing of the ground floor was utilized and this made available large orderly room and laboratory facilities, as well as six individual operating rooms.

No 3 Clinic at Camp Petawawa will be remembered by many personnel who have served there over the years as a draughty, unpleasant obsolete type of clinic. This has all been changed and any resemblance with the past is limited to the exterior of the building. The floor plan has been completely redesigned, the entrance moved and new waiting room, orderly room and laboratory facilities provided. Five separate operating rooms were constructed and two auxiliary bays added. All equipment has been refinished in Biscayne blue.

14 DENT COY NEWS

Duty Trips and Visits

Lt Col WW Anglin has recently visited clinics in Fort Churchill, RCAF Station Gimli and RCAF Station Gypsumville to inspect clinic facilities and to interview personnel.

Sports - RCAF Marathon Swim



WO 2 P Savage and LAW MN Boles, by making daily appearances at the swimming pool won the Section Champs Trophy for best participation by a section. WO 2 Savage contributed 412 lengths or just under six miles and LAW Boles 250 lengths or just over four miles toward the Airwomens swim from RCAF Station Bagotville to Tokyo.

WO 2 Savage receiving Trophy

Duck Hunting

Manitoba must be a very fine province for ducks judging from the number shot by Major Bryant (within the limit of course) on the opening weekend of the duck season.

15 DENT COY NEWS

Goose Bay Community Council

Major HG Bunston has been appointed Mayor of the Spruce Park Community Council of RCAF Station Goose Bay by the Station Commanding Officer, G/C DG Malloy. WO 2 JM Tapp has been elected to the Community Council and Sgt RB Innis has now completed a year on the Council.

Sports

Lt Col FD Charman, Capt JF Marcil and Capt JAL Jacob participated in the RCDC Golf Tournament at Camp Borden.

Capt JF Marcil won the College Militaire Royal Golf Tournament on 9 Sep with a fine score of 82.

Lt ES Moore has been appointed Chairman of the HQ Quebec Command Bowling League for the 1964/65 season.

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1 DENT DET NEWS

Special Events

The golf team from this detachment won the 2nd Annual RCDC Golf Tournament at Camp Borden 25th and 26th Sep 64. The team was made up of Major WH Carter, Major AG Andrews and Sgt WE Hill. Other members participating were Lt Col JA Lauziere, Capt RWC Adams, Sgt AM Jerome and Cpl RJ Forward from RCAF Station Uplands and Capt DR O'Hara and Sgt JV Minnelli from RCAF Station Rockcliffe.

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RCDC SCHOOL NEWS

US Army Exchange Dental Officer



Major DH Newell

Major DH Newell is a US Exchange Dental Officer at the RCDC School and a welcome addition to the training staff. He graduated from the University of Illinois College of Dentistry in 1958 and has served in the US Army Dental Corps. Since that time he has served in Korea, at the Brooke Army Hospital, Fort Sam Houston, Texas and Fort Monmouth New Jersey.

Don has completed a residency in Periodontia and received a Master of Science Degree in Oral Histology in 1964.

Major and Mrs Newell and their two children now reside in a PMQ at 15 Walcheren Loop.

RCDC School Improvement Programme

Teak wood panelling donated by the RCDC (R) Officers has made a tremendous improvement in the appearance of the RCDC School Library.

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4 FD DENT COY NEWS

Accommodation

The plan has been approved and the contract let to expand the Fort St Louis clinic by adding an additional operating bay. Within a "fighting" brigade it is difficult to compete with the fighting troops for priority in construction jobs. Our target date for completion of this project is some time before Christmas.

Special Events

4 CIBG celebrated Canada Day by holding a track meet and massed bands display in the Huckenhohl Stadium Mendon. Several Brigade and Canadian Army records were broken that day.

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35 FD DENT UNIT NEWS

Duty Trips and Visits

Major Craig and Cpl Jaeger to CJS London to render dental treatment 14 Sep - 3 Oct.

Major Susser, F/S Torrens, LAW Lockyer to RCAF AWU, Decimomannu, Sardinia to render dental treatment 14 Sep - 2 Oct.

Lt Col JC Brick on temporary duty to CJS London and RCAF AWU Decimomannu, on 28 Sep and 24 Sep respectively.

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CBU(UNEF) NEWS

Leave and Tours

The following personnel spent one week at the Beirut Leave Centre: Ssgt Roberts, Sgt Chase, Lsgt McDonald, Capt Daillyde, Sgt Reid and Major Gaudet. Lsgt Wylie spent two weeks special leave in Germany.

Capt Daillyde, Cpl Herrett and Cpl Hannay took the opportunity to go on a UNRWA Tour in Sep.

Special Events

A Change of Command and a farewell party for Col Rochester and a welcome for Col Cunningham was held on 25 July 64.

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RCDC ASSOCIATION - SIXTEENTH ANNUAL MEETING

This meeting was held at the RCDC School 18-19 Sep 64. Vice-Admiral KL Dyer, DSC, CD, Chief of Personnel, CFHQ, addressed the meeting on the new organization taking place in the Armed Forces.

The Association voted the very generous and greatly appreciated gift of \$400.00 to be used for future panelling in the School.

Slate of officers elected for the coming year:

President-Past	- Lt Col GL Ramsay
President-New	- Lt Col AZ Henry
President-Elect	- Lt Col MJ Snidal
1st Vice-President	- Lt Col AJ Harris
2nd Vice-President	- Lt Col JE Hallett
Treasurer	- Col CE Woods
Secretary	- Col CBH Climo



Lt Cols Snidal, Harris, Henry, Ramsay,
Col Climo and Col Woods

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RCDC (MILITIA) EFFICIENCY COMPETITION

Trophies and Scrolls have been awarded to the following RCDC Militia units taking part in the General Efficiency Competition:

No 57 Dental Unit, Winnipeg, Commanded by Lt Col MJ Snidal, the Moore Trophy for General Efficiency;

No 60 Dental Unit, Edmonton, Commanded by Lt Col SG Geldart, the Trelford Trophy as Runner-Up in General Efficiency;

No 55 Dental Unit, London, Commanded by Lt Col JD McLean, the Saskatchewan Dental Association Memorial Trophy as Most Improved Unit in General Efficiency.

PROFESSIONAL TRAINING

Royal College of Surgeons - London, England

Major GT Crossman - Oral Surgery 21 Sep - 13 Nov 64
Major JF Eadon - Oral Surgery 21 Sep - 13 Nov 64

University of Freiburg - Republic of West Germany

Major JH Marion - Orthodontics 26 Oct 64 - Jul 65

Ent Air Force Base - Colorado Springs, Colorado

Major JD Bourque - Oral Surgery 18 May - 29 May 64

US Naval Dental School - Bethesda, Maryland

Major TD Cobb - Periodontia 28 Sep - 13 Nov 64
Major JJY Turcotte - Periodontia 28 Sep - 2 Oct 64

The Doctors Hospital - Toronto, Ontario

Major PL Falkner - Oral Surgery 4 May - 26 Jun 64

The University of Toronto - Toronto, Ontario

Major PH Guevremont - Dental Public Health 9 Sep 64 - May 65

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PROMOTIONS

The following Corps personnel are congratulated on their promotions:

Capt	HJ	Cashin	- to Major
Ssgt	WA	Bennett	- to WO 2 (DQMS)
Sgt	LG	Brown	- to Ssgt
Sgt	MA	James	- to Ssgt
Sgt	C	Johnston	- to Ssgt
Cpl	WJ	Parker	- to Asgt
Pte	RL	Geddes	- to Cpl

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

RETIREMENTS AND RELEASES

Major J	McGaughey	Cpl G	Dancer
Capt	RJ Lewis	Cpl IA	Mason
Capt	GR Myles	Cpl TW	Thrasher
WO 2	GM Armstrong	Pte GMR	Gravel
Sgt	MA Craig	Pte AL	McIssac
Sgt	SG Fraser	Sgt BJ	Larose (RCAF)
Cpl	RI Buncombe	Miss LA	Wrixon

The

ROYAL CANADIAN DENTAL CORPS

Quarterly



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Cover Photograph

Typical view of the Alaska Highway of the Northwest Highway System
approximately 25 miles south of the capital city, Whitehorse, Yukon Territory.

ANOTHER VIEW OF THE PROBLEM

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Royal Canadian Dental Corps.



Dr. J.D. McLean

It will be accepted generally that there has been a significant increase in appreciation and desire for dental services by the Canadian people over the past two to three decades. While several factors have influenced this trend, the Royal Canadian Dental Corps can take pride that it has played an appreciable role in bringing about the change. Particularly during the period of the Second World War many Canadians, serving in the armed forces, were for the first time made fully aware of the role of dentistry in the provision of total health care. Perhaps the most striking evidence of an altered public attitude is contained in the report of the Royal Commission on Health Services. Their evident concern for the dental health needs of Canadians, as a part of the total health needs of the Nation, ought to be a source of gratification to the profession which has been urging attention to serious personnel shortages for so many years. The Commissioners' proposals to provide more adequate support for the operation of dental schools, dental research and the extension of teaching facilities are consistent with the objectives of their report.

Contained in the counsel, however, are certain recommendations which quite understandably give cause for concern to those more fully aware of the implications of the proposals and their effect in the practice of dentistry, than can be expected from those outside the profession. To some aspects of these latter recommendations, attention is not drawn.

At the outset, it should be observed that there are major inconsistencies between the basic philosophy of the report and the means proposed for the provision of more adequate dental health care. That portion of the report titled Health Charter for Canadians is intended to state the philosophy underlying their prescription. It is said that all plans should be "BASED upon freedom of choice, and upon free and self-governing professions and institutions." The practicality of de facto "freedom of choice" in a scheme which envisages centralized dental clinics staffed by salaried "auxiliaries" and a lesser number of supervising dentists, and no doubt frequently a single dentist, is beyond the imagination of this author. There may be special circumstances in some regions, as for example remote and sparsely populated areas, where a system utilizing salaried employees of the state is required to provide

service, but to extend this principle to the provision of all care under a publically financed plan, does not now seem either needful or desirable.

The Commissioners state that "this generation, we believe, will not be able to meet its total dental requirements." With this statement, there is no argument. The extent to which an attempt should be made to meet "total requirements" can, however, be little more than a matter of conjecture. The Commissioners note the need for and the relative absence of statistical information upon which to base future projections, and in the absence to date of their own foundation studies, upon which many of the recommendations seem to have been made, it is difficult to enter into a full discussion of some points.

While it is obvious that experience with a particular segment of society is unlikely to be completely valid for the population as a whole, it is equally incorrect to assume that nothing can be learned for an examination of experience with special groups.

The Government of Alberta, and the Alberta Dental Association, have co-operated for more than a decade in the provision of dental care at public expense for a segment of the people of that province. The recipients concerned have been categorized by the Welfare Department of that province into four groups. The first is composed of various pensioners such as those receiving old age assistance, supplementary allowances, widows pensions and so forth, and all are in the sixty year and over age group. The second is composed of blind and disability pensioners of all ages, the third group are recipients of mothers allowances and social allowances and are under sixty years of age, and the final group is composed of children who are wards of the Government. From statistics provided in a personal communication by the Secretary of the Alberta Dental Association on the utilization of services by the various categories, it is highly significant that even after more than ten years of operating the Plan, participation varies from a low of 8.8 percent by those persons over sixty years of age to a maximum of 45.5 percent by the group of children whose parents are recipients of mothers' allowances and social allowances. In the group comprised of children who are wards of the Government, and for whom one might reasonably expect there would be particular government concern to ensure adequate health care, there was only 38.4 percent participation in the available service in 1963, and this proportion was 2.7 percent higher than for the preceeding year. The extent to which the population as a whole would avail itself of a higher, or lower, percentage participation in a national dental care program, even for children, is a matter of pure conjecture, but from this and other limited plans, it is not unreasonable to conclude that demand for service will fall significantly below "total requirements."

It is most surprising to find that the Commissioners did not place greater emphasis on what surely ought to be the prime target of any sound health plan, public education and prevention. It is true that proposals are made to strongly encourage fluoridation of community water supply, and research programmes, yet one group in the presently constituted dental health team which is most actively engaged in both education and prevention is dismissed with but brief mention in a couple of paragraphs, and no recommendation for their participation or indeed expansion is contained in the report. Reference of course is to the dental hygienists. The fact that their number in Canada is still small, at least in part because programmes were not available in this country until very recent times and the fact that

practitioners have been relatively slow to utilize their services, does not justify the seeming conclusion that their role is of no significance. Indeed, it is contended that provision of strong incentives should have been urged in order to augment this corps of important auxiliaries and to encourage their utilization in both public dental health programmes and in private offices.

Another matter which seems to have escaped the attention of the Commissioners, and their advisors, again perhaps of the lack of definite information on the subject, is the rate at which an expansion of available services will be fully utilized. The point may be illustrated by the changes in one Province. As recently as a decade ago, the population per dentist in the Province of Newfoundland was roughly three times that of the Canadian average. In the intervening short period, this figure has been reduced by some fourteen percent. While no one is likely to consider that even the approximately four thousand persons per dentist in the city of St. John's is an adequate supply, nonetheless, observations and comment by practitioners in that region lead one to suspect that even with an accompanying, and preferably preceding, programme of public dental health education, it might easily be possible to provide a service more rapidly than it would be appreciated and thus utilized by those for whom it is intended.

Finally in support of a contention that the number of dentists plus "auxiliaries" projected by the Commission is in excess of the probable utilization of these personnel, a brief examination of productivity is presented, based on figures from the Report.

Between the years 1931 and 1961, the population of Canada increased 1.72 times. In the same interval, the number of dentists increased 1.45 times, and their productivity 2.81 times. Thus, dental treatment for the average Canadian increased two and one-third times ($\frac{1.45 \times 2.81}{1.72}$).

Again, using the Commission figures, it is estimated that between 1961 and 1991 the population of Canada will increase 1.93 times, and if the proposed number of dentists are produced (a realistic proposal), the number of dentists will have increased 2.46 times. In the unlikely event that productivity does not improve over the indicated period, treatment for the "average Canadian" will increase 1.28 times (approximately 25 percent). In all of this, one should bear in mind the present estimate that one-quarter to one-third of the population is receiving reasonable dental care, (probably a high estimate), and that demand is unlikely to equal the need in so short a span even with strenuous efforts to promote dental health education.

In the more likely event that productivity will increase, and assuming that it does so at the same rate as in the past three decades, then treatment for the "average Canadian" will increase 3.59 times. Viewed in another manner, three and one-half times as many Canadians will be receiving the same quality of care as is now being given to the present population.

An interesting comparison for the United States is contained in a paper prepared for presentation at the annual meeting of the American Dental Trade Association, Manufacturers Section, Absecon, New Jersey in September of 1964 by the Director of the Bureau of Economic Research and Statistics, of the American Dental Association, Mr. B. Duane Moen. In his paper, Mr. Moen

stated that the amount of dental treatment received by the average American has increased from \$4.58 to \$11.58 (expressed in constant dollars) during the period 1935 to 1963. In the same interval, the population per dentist has increased by thirty percent. Thus in the twenty-eight year period productivity per dentist had increased more than three times ($\frac{11.58}{4.58} \times 100 = 3.29$), an amount very similar and tending to support the Canadian figure.

The significant point is, however, that if the number of dental graduates can be increased over the next decade or so, and if productivity continues to increase, then to add a corps of "auxiliaries" who presumably can be as productive in their limited spheres as the dentists, may well result in an over supply of personnel. By 1991, the Commission's proposal would result in an average of one "auxiliary" for each dentist and thus the available service at that time would not be 3.5 times the present, but in fact, 7.2 times the presently available service.

It seems to this writer that a more realistic approach for 1991 would be to provide three and one-half times the presently available services from dentists, augmented by an increase in productivity resulting from the expanded utilization of the kinds of auxiliaries presently members of the dental health team. The Commission has presented proposals which could result in the required number of dentists, and the one real difficulty may be to convince the public that the profession intends and in fact will make more extensive use of auxiliary personnel. As one provincial Minister of Health observed not long ago "You have been talking for ten years about the more extensive use of auxiliaries, but what have you done about it?" The same question might well be asked as we enter into this new year of 1965! Nonetheless, the professional climate appears to be more favourable and with the suggested incentives to the establishment of group practices in dentistry and thus re-organize dental practice, there is good reason for the optimistic belief that this objective can be realized.

It is contended that the projected increase in the number of dental graduates, together with an increase in the utilization of the present types of auxiliaries, (though in the latter instance special incentives may be required) can result in a level of productivity which will meet the probable demands for service within a decade. True, the initial rate at which this increased service becomes available may be somewhat slower than that attending the implementation of the Commissioners' proposals for "auxiliaries" but there would not be the attending and very real potential danger of so altering the character and quality of dental service that the long future may be mortgaged to the present.

It is contended further that a child care program could be implemented from the outset on a fee-for-service - private practice basis, if Canadians are prepared to move somewhat more slowly in the initial five year period. Finally, it is urged that encouragement should be forthcoming to increase that corps of dental health educators and workers in prevention, the dental hygienists!

If the foregoing observations are reasonably valid, it would appear that an adjustment in some of the recommendations of the Royal Commission

would result in proposals more consistent with the basic philosophy of the Report and would also result in the provision of a more desirable level of dental service for Canadians in a manner consistent with the principles proposed by the Profession.

There should be no necessity to introduce a new type of "auxiliary" which the profession quite rationally fears could cause a radical change in the character and development of dental service, a dental service which has come to be so highly appreciated in this country that there is grave concern because it cannot be universally available at the moment.

RENCONTRE AVEC ELIZABETH II - 10 OCT 64

Captain J.P.J. Laporte, BA, DDS

Les jours passent mais ne se ressemblent point. En effet deux officiers dentaires du camp Valcartier eurent le privilège de rencontrer sa Majesté Elizabeth II. Invités à aller voir le défilé militaire du 22ième Régiment lors de la visite de la reine à la Citadelle de Québec, ces deux militaires et leurs épouses furent invités par la suite au mess des officiers de ce même régiment et de là, à aller visiter la demeure du Gouverneur-Général où, par hasard, se trouvait sa Majesté, la Reine. Pour ces deux officiers, la rencontre fût plus qu'un fait du hasard, elle fût une occasion de connaître plus intimement les dessous de la royauté. La rencontre fût brève mais très intéressante. En effet, l'horloge sonnait la dix-septième heure lorsque la conversat s'engagea;

Sa Majesté: "Êtes-vous du Royal 22ième Régiment?"
Jeune Officier: "Non, je fais parti du corps dentaire de l'Armée canadienne."
Sa Majesté: "Mais je constate que vous avez de nombreux amis du Royal 22ième."
Jeune Officier: "En effet, je travaille au camp Valcartier comme dentiste et je suis en contact journalièrement avec les gens du 22ième."
Sa Majesté: "Est-ce que vous pourriez m'informer de quelle façon vous avez fait votre cours de dentisterie et où?"
Jeune Officier: "J'ai fait mon cours à l'Université de Montréal et cela avec votre aide financière."
Sa Majesté: "Est-ce que vous conciliez bien votre vocation professionnelle et votre vocation militaire?"
Jeune Officier: "Le travail est varié et l'expérience exceptionnelle je crois que les deux se concilient très bien."
Sa Majesté: "Croyez-vous demeurer avec le corps dentaire Royal Canadien quand votre contrat sera terminé?"
Jeune Officier: "Si sa Majesté me comble autant comme dentiste qu'el m'a comblé étant étudiant, il me fera plaisir de servir votre Majesté durant de nombreuses années."

Sur ces mots, la conversation se termina et après quelques petits appétitifs, ces deux officiers retournèrent à la maison, enrichis d'une expérience unique et profitable.

THE ROYAL CANADIAN DENTAL CORPS
ON THE NORTHWEST HIGHWAY SYSTEM

Colonel B.P. Kearney, MBE, CD, DDS, FICD



Colonel B.P. Kearney

Faced as they were with the Japanese threat in the Aleutians, the Joint United States - Canadian Board of Defence approved in February 1942 the construction of an overland route through Northern British Columbia and the Yukon Territory to Alaska. This decision led to one of the epic feats of construction in modern times, featuring the US Army Engineers who hacked 1523 miles of road through the Northern wilderness in less than eight months.

The truck route which later became known as the Alaska Highway was officially opened on 20 November, 1942. Because of the need for haste and the restrictions of war-time economy, the road had been pushed around soft spots that might cause delay, detoured around ravines to avoid bridging and directed towards open country which required less clearing. These considerations account for much of the crookedness of the road and on the walls of old restaurants along the Highway the following lines may still be seen:

"Winding in and winding out,
Fills my mind with serious doubt,
As to whether the lout who built this route,
Was going to Hell or coming out."

The original agreement provided for the US to maintain the Highway for six months following the war, and then that part lying in Canada was to be turned over to the Canadian Government. Accordingly, on 1 April, 1946, over 1200 miles of meandering gravel road plus associated facilities became the responsibility of the Canadian Army, and the Northwest Highway System was born.

The task of maintaining and improving the Highway from Dawson Creek B.C. to the Alaska border was accepted with enthusiasm by the Royal Canadian Engineers. To support them, various other Corps of the Canadian Army, including the Royal Canadian Dental Corps, were assigned to the Highway and took up their tasks with skill and energy. This is the story of the RCDC on the NWHS and of its personnel who served in association with it and with the Northwest Staging Route.

The operation of the RCDC on the NWHS commenced on 8 April 1946 with the arrival in Whitehorse of a dental subsection from Calgary aboard an RCAF Dakota named "Gravel Gertie". Capt JA Allan, Sgt J Seeman and Sgt DW Timbres had been instructed to man the clinic in the Whitehorse Military Hospital



Gravel Gertie

which had been taken over from the US Army. They were to provide treatment for all Service personnel, civilian employees and dependents scattered along the Highway and at stations of the Northwest Staging Route between Dawson Creek and the Alaska border. The clinic was most impressive, with SSW Master units, chairs and cabinets finished in ivory-tan. The floors had not yet assumed the "hills and gullies" appearance which later arrivals will remember so well.

It soon became obvious that a second detachment was required to provide a travelling dental service for personnel of the Highway Maintenance Camps, Repeater Stations and stations of the Staging Route. Accordingly, Capt J Conchie, Sgt VH Shaw and Pte R Drewery were posted to the Highway in July. Mounted in a mobile clinic, they left Dawson Creek and slowly but surely wended their way to Whitehorse where Sgt C Johnston joined the group as the second laboratory technician.

In late June the Dental Corps was represented in the first Canadian Army wedding in Whitehorse when Capt Allan temporarily surrendered his duties as organist at the Log Church to take part in the ceremony in the role of groom. He and his bride left the Highway in November and he was replaced in the clinic by Capt BD Friesen.

During the winter of 1946-47 Capt Conchie, Sgt Timbres and Sgt Shaw battled the elements in the mobile clinic and provided dental treatment to personnel stationed between Whitehorse and Dawson Creek. The trip south was largely uneventful but the return journey was dogged by accident and misadventure. That winter was one of the coldest on record with the thermometer dipping to an unofficial low of -84°F at Snag. At one time, frozen brake lines left them stranded on the Highway with the temperature approaching 70 degrees below zero. One can imagine the relief they felt when, about an hour later, a British Yukon Navigation Company bus appeared and rescued them from their serious plight.

Early in the Spring of 1947 Capt Friesen was replaced by Maj WI Whitehead, Sgt Gibson by Cpl R Stewart and Sgt Timbres by Sgt AC Vout. Capt Friesen and Cpl Stewart formed the team to provide treatment to the outlying stations still operated by the services. These had been reduced by the takeover of Repeater Stations by the Canadian National Telegraph and the manning of Highway Maintenance Camps by civilians. Hence, there was a reduced requirement for a mobile team and by the spring of 1948 air transport was increasingly resorted to.

It was also about this time when the decision was made to open clinics on the southern part of the Highway. Sufficient space was acquired in the Administrative Building at RCAF Station Fort St John and in the hospital at RCAF Station Fort Nelson to permit installation of pedestal cuspidors and dental chairs. Part-time clinics were officially established at these locations in February 1948 and were operated by Capt NA Butcher, assisted by Cpl Stewart and Sgt Vout. From their home base at Fort St John they divided their time between these two stations and, with the use of field equipment, provided dental treatment at Dawson Creek, Grande Prairie, Beaton River, Smith River and Watson Lake. During this period, personnel from Mile 300, which later became Camp Muskwa, were treated at the Fort Nelson Clinic. Also associated with Capt Butcher, prior to his replacement by Capt RE Dyer in June 1950, were Sgt W Powers, Cpl GF Keogh and Cpl MF Conkey.

In Whitehorse meanwhile, further personnel changes were being made along with certain minor alterations in the clinic itself. Major AC Leman, who took over from Major Whitehead in March 48, despite the normal "space at a premium" situation, nevertheless contrived to have an office built, which although very small served for many years. He also displayed a certain amount of literary talent, acting as Northern editor of the "Western Commander".

During Major Leman's time in Whitehorse he witnessed the arrival of Capt TA Richardson and the replacement of Sgts Shaw and Vout and Cpl Stewart by Sgts EM Lobb, FR Taylor and W Powers and Cpl EB Morse. Before Sgt Shaw left the Yukon he accompanied Maj Leman to RCAF Teslin on what proved to be the last treatment visit to that station prior to its closure. It is of particular interest that they used the old mobile clinic which, following the tough luck that had dogged it in 1946, had remained unserviceable for two years.

Commencing in 1949, RCAF Stations of the Staging Route were phased out or their responsibility was transferred to the Department of Transport. In particular, Fort St John became a DOT responsibility in Jun of 1950 and clinic equipment was withdrawn at that time.

Capt Dyer, on taking over from Capt Butcher, was based at Fort Nelson with a treatment responsibility for Cdn Army, RCAF personnel and dependents of that area, in addition to which he was of considerable assistance to the civilian population of the surrounding territory. He was aided in this large task by Pte AR Borsholt. Shortly after Capt Dyer's arrival, Watson Lake became the responsibility of the Whitehorse Clinic and that location received periodic visits from Whitehorse. Furthermore, scheduled flights by RCAF North Star were quite frequent at that time and emergency requirements were readily handled by the Whitehorse clinic. This service became more infrequent when many aircraft were withdrawn for the Korean airlift in 1950, but their lack was largely compensated for by the reduction in the personnel strength at Watson Lake.

The Fort Nelson clinic ceased to function full-time when that station was reduced to detachment status in 1951. Clinic space was retained in the hospital however and Whitehorse began a periodic service for those personnel remaining at Fort Nelson.

In August 1950 Maj Leman was replaced by Major BP Kearney whose tour of duty in the North included visits to the RCCS detachments at Mayo and Dawson in addition to the periodic trips to Fort Nelson and Watson Lake. Much could

be told of the occasion on which Maj Kearney, accompanied by Sgt Lobb and Sgt Morse, travelled to Mayo and Dawson but perhaps it will suffice to say that never before was a welcome mat spread so sincerely and enthusiastically; never before, nor probably since, has a dental detachment had the unique experience of celebrating Robbie Burns anniversary on two successive nights in communities several hundred miles apart deep in the Yukon.

The final visit to RCAF Aishihik, and the last known journey by that very-tired mobile clinic, was made by Maj Kearney and Sgt Taylor in the fall of 1951. Only superb driving and certain weird maintenance and repair procedures on the part of Sgt Taylor succeeded in getting the vehicle home to pasture. But she was not to travel upon the "Big Road" again. Allegations were made at the time that the weight of moose and game birds was just too much for her, but this writer stands fast in the belief that it was only age and previous misadventure that ended her career.

Capt Richardson departed from the Whitehorse scene in November 1951 and was replaced by Capt CL Gullekson. Farewells were also said to Sgt Lobb, Sgt Taylor, Sgt Morse and Sgt Powers while greetings were extended to Sgt SM Toole, Sgt JE Shiner and Cpl Pamela White, who was the first RCAF airwoman dental assistant to serve with the RCDC in the Yukon. Other notable events during this period include the creation of a third operating space in the clinic by converting part of the store-room (in anticipation of a third phase COTC candidate who never did arrive), and the local laundry finally agreed to starch the dental gowns!



Whitehorse Military Hospital as seen in April, 1946. The dental clinic was housed in the section to the extreme right of picture.

Maj JG Andrews accepted the No 6 Clinic inventory from Maj Kearney in July 52 as well as the managership of the Army fastball team and, subsequently, the early morning disc jockey program at the local radio station.

Early 1953 saw the departure of Capt Gullekson after a longer-than-usual stay for a single man in the Yukon. That his time was well spent was demonstrated by his subsequent marriage to his favorite Yukon nursing sister.

It became increasingly apparent on the Highway that the Korean conflict and the resultant expansion of the Canadian Forces was making heavy demands for dental personnel and it became very difficult for the limited clinic staff to cope with the demands for their services. In this endeavour however, they performed admirably. Fortunately, late in 1953 some of the gaps in the lab were filled and Sgt Shiner was given a helping hand by Sgt AM Jerome for two months, followed by Sgt GF McKay for a similar period. Their combined efforts apparently overcame the accumulated backlog of prosthetic cases for the laboratory staff never again numbered more than one technician. Sgt A Fox took up the laboratory burden in Jul 54 on departure of Sgt Shiner.

In December 1953 No 6 Clinic received a Christmas present in the person of Capt FM Nesbitt who was closely followed by Capt CR Pugh. Their arrival marked the beginning of a new dental era in Whitehorse with the establishment of a second clinic (No 14 Clinic) at RCAF Station Whitehorse. The patient responsibility was divided between the two clinics, with the hospital clinic handling Army personnel and dependents living downtown while No 14 Clinic looked after RCAF personnel and dependents living up the hill. All patients who required general anesthetic were treated by No 6 Clinic which had the facilities of the hospital available.

On the completion of his Northern posting during the summer of 1954 Maj Andrews turned over the position of senior dental officer to Maj LC Craigie who retained this appointment until August 1956. It is understood that Maj Craigie arrived with more hunting and fishing equipment than previous incumbents had managed to accumulate during their entire stay in the North.

Pte M Tremblay, Sgt MG Dean and Pte CC Millard arrived in that order to join Sgt J Roberts in handling the duties of dental assistant in Whitehorse and in the part-time clinic at Fort Nelson. In order to provide a much improved clinic with two operating spaces and laboratory area, a small building was obtained adjacent to the hospital at Fort Nelson and the space formerly used was abandoned. This building was subsequently moved to Camp Muskwa and continued to function as a part-time clinic there until the Highway was handed over to the Department of Public Works in 1964.

During 1956 another series of personnel changes involved Maj HR Kettyl's arrival in January, Capt Pugh's departure in May, Capt MP Quinn's arrival in June, Maj Kettyl's departure in July and Maj RA Gray's arrival the same month. To replace Sgt Fox, Sgt Morse came back for a second tour of duty in his beloved Yukon. It is interesting to note that Capt Pugh did not stay away long either; he returned several years later to enter civilian practice in downtown Whitehorse. Both of these gentlemen were able to relocate their favorite fishing spots without difficulty.

Another noteworthy addition to the staff during this period was Capt D Charlton who is perhaps best remembered for flying the Southern Cross of Australia on the flagpole of the Officers' Quarters in downtown Whitehorse on some now-forgotten Australian holiday. A telephone call from a civilian who was enquiring about the strange flag caused the Commander to investigate, and the colours were struck!

The summer of 1958 saw the departure of Maj Quinn following the closing out of No 14 Clinic at the Air Base and the transfer of its responsibilities to Major WH Harrington who had taken over No 6 Clinic in January of that year. In this manner the wheel turned full cycle and the RCDC operation in Whitehorse reverted to what it had been during earlier years; the original clinic, which had been taken over from the US Army in April of 1946, was once again responsible for the dental treatment of all Army and RCAF personnel and dependents in Whitehorse.

Other new arrivals that summer included Capt WR Collier, Sgt JM Moore and Cpl HEG Franzgrote. Their first duties included assignment to fire-fighting during the 1958 bush fire around Whitehorse which destroyed the buildings at the well known Takhini Hot Springs. The fires, followed a short



Her Majesty Queen Elizabeth and Prince Philip arrive in Whitehorse on 18 July, 1959. Major WH Harrington was unofficially appointed "Queens Own Honorary Dentist" for the duration of her visit.

time later by earthquakes which shook up the town and the military bases quite thoroughly, will not soon be forgotten by Maj Harrington and his staff. It is also probable that Capt Collier's successes in big game hunting will long be remembered as will Cpl Franzgrote's association with the RC Youth Hostel for Indian Children. The Yukon crests the youngsters were taught to make by Cpl Franzgrote are still being produced and provide a valuable source of income.

On return to a one-clinic status in Whitehorse, it was decided to relieve its personnel of the responsibility for the part-time operation at Camp Muskwa. This chore fell to the Edmonton branch of the RCDC family who continued to man it periodically until 1963 at which time it was returned to the care of Whitehorse.

In late 1958 it was agreed that the Whitehorse dental clinic should be established in Bldg 425 at the Air Station. This project was completed in November of the following year, and old No 6 Clinic gave way to new No 6 Clinic "up on the hill".

Sgt Morse was finally induced to leave Whitehorse in July 1959 after two postings which covered a total of six years in the Yukon. He was replaced temporarily by Sgt V Krymlak who handed over to Sgt DE Wood in August.

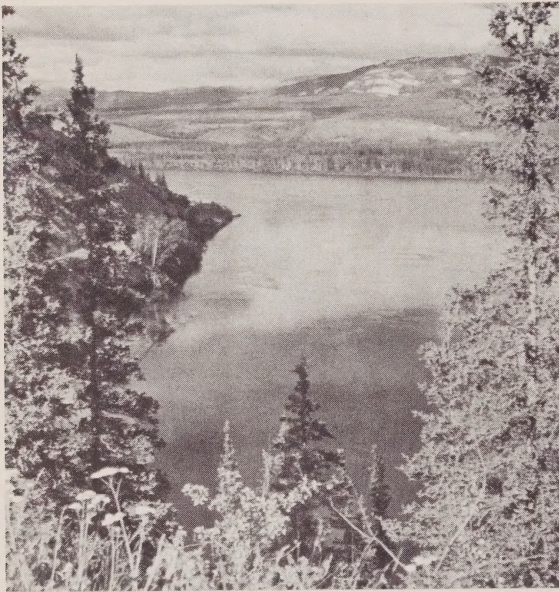
Maj WK Dickie replaced Maj Harrington as the Senior Dental Officer on the Highway in July 1960 and said his farewells two years later when he handed over to Major SW Muller. It was during 1960 also that the first dental technician clinical was employed in Whitehorse in the person of WO 2 VO Blackmore who proceeded to that location following his qualification at the RCDC School.

Sgt Moore was replaced by Sgt VR Kidd in 1961 and the staff was augmented by the addition of Cpl GD Schwarze. Capt Collier was granted an extension until 1962 at which time he bade farewell to the Yukon hills and departed with his trophies of the chase. He was replaced by Capt GA Johnson who took over not only his duties but also his love for the rivers and hills.

Improvements were made to the clinic in 1962 and plans were formulated the following year to enlarge the dental accommodation. These improvements never came to pass as it was decided later to reduce the dental staff in accordance with the cutting back of the Department of National Defence in the Whitehorse area.

Having successfully completed his course at the RCDC School, Sgt Kidd returned to Whitehorse to assume the duties of dental technician clinical from WO 2 Blackmore, and Sgt GH Taylor moved into the position of senior dental assistant. It was also during the summer of 1962 that the laboratory responsibility shifted from Sgt Wood to Sgt RL Thornton and Maj IAC MacDonald arrived in Whitehorse to replace Maj Muller whose service in the North was terminated because of illness.

This happy group, under Maj MacDonald's genial direction, made repeated assault on the almost forgotten golf course out the Carcross Road which had been hacked out of the wilderness by the long-departed US Army Engineers. Some months and many golf balls later, they were forced to conclude that it would be better to abandon this off-duty pursuit in favour of hunting and fishing. Hence, like their predecessors, they turned to the natural opportunities of that country for their relaxation from clinic duties. It is felt that Maj MacDonald's fishing was not always completely orthodox in that he acquired certain notoriety and considerable "joshing" for catching a sea-gull on his trolling line.



A view of the Yukon River
in the Whitehorse area

Dental treatment was provided by the aforementioned staff in Whitehorse and at Muskwa until the handover of the Northwest Highway System to the Department of Public Works on the first of April 1964. At that time the Muskwa clinic was closed and No 6 Clinic reduced to its current staff of Capt Johnson, Sgt Thorton and Mrs O Johnson; their attachment was changed from the Northwest Highway System to RCAF Station Whitehorse.

Certain Canadian Army Personnel still remain on the Highway, seconded to Department of Public Works, but the day will undoubtedly come when the only Army personnel remaining in the Yukon will be wearing the badges of the RCDC.

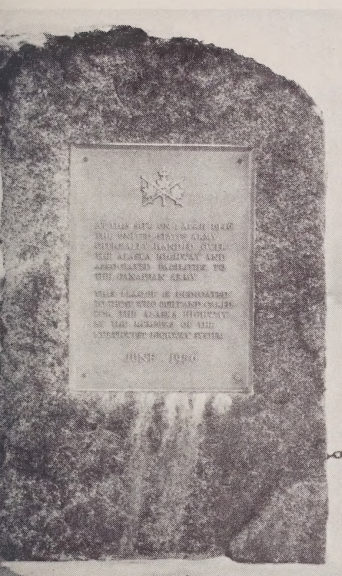
Undoubtedly they too will join those who preceded them in fond remembrance of their Yukon postings. They will certainly recall the strenuous work in the clinic which served a large and highly varied clientele, but they also will remember the relaxation and wonderful fellowship in messes and homes, the hunting and fishing which are unparalleled in other locations and, above all, the Yukon itself. In the words of Robert Service:

"It's the great, big, broad land 'way up yonder,

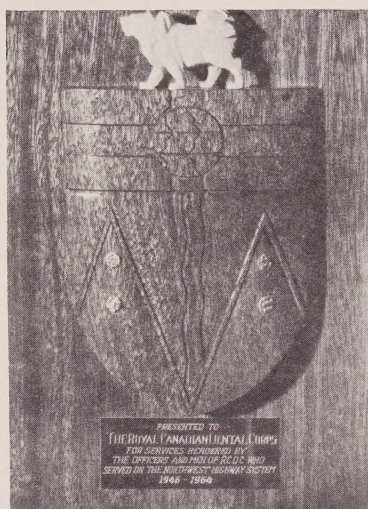
It's the forests where silence has lease;

It's the beauty that thrills me with wonder,

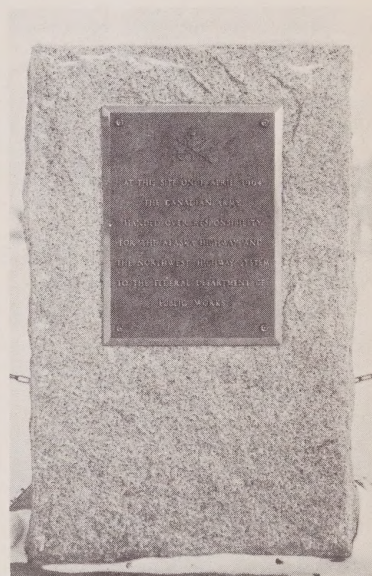
It's the stillness that fills me with peace."



Cairn commemorating the handover of the Highway from the US Army to the Cdn Army



Plaque presented to the RCDC following handover of NWHS to DPW



Cairn commemorating the handover of the Highway from the Cdn Army to the Dept of Public Works

Note:

Restriction of space and lack of records have precluded the mention of RCAF airwomen dental assistants and civilian dental nurses who served with the Corps in Whitehorse. Their contribution is in no ways minimized because of this omission nor is that of various other RCDC personnel who spent short temporary periods of duty or who transferred to the RCDC while serving with other Corps on the Highway.

ORTHODONTIC REPOSITIONING OF ABUTMENT TEETH WITH A SIMPLE REMOVABLE APPLIANCE

Captain Y. Kamachi, DDS

INTRODUCTION

In the practice of crown and bridge prosthesis, more complex problems are now being treated. Abutment alignment is one of the most important factors in determining the design, esthetics and longevity of fixed and removable partial dentures. In the past, malposed teeth were often extracted or compromises were adopted which reduced the effectiveness of the prosthesis. Improving the axial direction of the abutment will provide a more suitable foundation for the prosthesis and also will permit the utilization of teeth that were formerly extracted as being unsuitable for abutments.

It has been estimated that local or environmental factors such as thumbsucking, early loss of deciduous teeth, prolonged retention of deciduous teeth, early loss of permanent teeth, abnormal or deleterious habits of musculature cause 28 percent of all malocclusions. Combined with the neglect of interceptive orthodontics, the prosthodontist is often faced with tilted, rotated and drifted teeth in the reconstructive procedures.

This article will discuss the criteria for simple and complex orthodontic procedures and the management of minor irregularities of abutment teeth within the realm of the dental officer.

DIAGNOSIS, ANALYSIS AND TREATMENT PLANNING

Recognition of the existing problem concerning the abutment tooth is the main factor in diagnosis. The scrutiny or analysis of the abnormality is the basis for formulating the treatment plan. Appliance design and consideration of the tooth must go hand in hand as the type of prosthesis will dictate the amount of stresses on the tooth and the necessity for its correction.

In the analysis we use normal diagnostic aids such as study models, radiographs and an oral examination. The study model and radiographs will show the axial inclinations of the teeth in a mesio-distal direction, facio-lingual axial inclinations, abnormal rotations, interlocking cuspal relations resisting orthodontial, and unerupted teeth. Oral examinations will reveal cuspal interference in different excursions and excessive overbites due to infra-occlusion of posterior teeth or supra-occlusion of anterior teeth with the jaws at rest.

A treatment plan can now be formulated to design an appliance to correct the problem to the extent permitted by the limiting factors. This will also include the direction and distance desired in tooth movement.

Teeth can be moved in three planes simultaneously. In many cases tissue will not respond favourably, movement may be difficult or impossible and new positions may be unstable. The lack of skill and the lack of appreciating the appliance potential may also affect the expected results.

TYPICAL PROBLEMS

The most frequent problems presented are: FIRSTLY, open contacts between adjacent teeth which, if corrected by overcontouring of the crown, will result in food traps; SECONDLY, axial tilting of the abutment, resulting in overloading of the tooth, followed subsequently with periodontal and alveolar atrophy; THIRDLY, occlusal interference in eccentric excursions; FOURTHLY, rotation of teeth effecting disturbances in inclined plan relationships resulting in difficulty in tooth preparation causing poor esthetics and mechanics; FINALLY, labially or lingually tipped or labially flared anterior teeth resulting in poor esthetics. There are many more but the problems may be incorporated in the above five.

ANOMALIES REQUIRING INVOLVED ORTHODONTIC PROCEDURES

There are several irregularities which require co-operation with an orthodontist. One is when the abutments are tipped mesially or distally in excess of 30 degrees, or when they are rotated in the same magnitude. This functional imbalance is usually the result of one or more extractions. The orthodontist should hope to achieve parallel abutments for fixed bridge work. The second requirement the orthodontist may achieve is to re-establish the plane of ideal occlusion when the maxillary teeth have elongated into the space where mandibular teeth have been extracted. Another is where excessive rotation is present and simple correction is not feasible. It is considered to be of less importance to use extreme measures to correct rotated teeth as full crown coverage decreases the need.

Other fields for the orthodontist are excessive overbite and/or overjet and any re-construction will fall short of ideal if dento-alveolar relationships are neglected. Thus, the prosthodontist should expect the orthodontist to achieve parallel abutments, a balanced occlusion and a correct dento-alveolar relationship.

MANAGEMENT OF MINOR IRREGULARITIES OF ABUTMENT TEETH

The general practising dental officer may correct less complicated malocclusions by the use, and understanding the mechanics, of simple orthodontic appliances. The mechanics of tooth movement can be achieved with either fixed or removable appliances. The most simple and versatile in adult dentistry is the use of a removable appliance. Their usage is not limited to one or two teeth but several at one time. The removable appliance will now be considered.

REMOVABLE APPLIANCES

Basically, the appliance is an acrylic resin palate for the maxilla and a continuous lingual acrylic appliance for the mandible. The acrylic serves as a stress breaker for the active forces which are derived from auxiliary springs attached to regulate the malposed teeth.

Factors presented by each individual case determine the design. The simplest and most effective generator of force is the use of "the safety pin spring" attached to the acrylic. The one-sided spring will move or "push" a tooth away from its activated leg, (Fig. 1) while the two-sided spring will push teeth away from each other, (Fig. 4). To make a single spring, take a 3-inch piece of .020 or .022 inch stainless steel wire. Grasp the wire in a

No 139 orthodontic pliers $\frac{1}{2}$ inch from one end; turn the long end around the round beak of the pliers one complete turn. This forms the activating loop in the spring. Ideally, a loop of $\frac{1}{8}$ to $\frac{3}{16}$ inch diameter is made to upright mesially or distally tipped abutment teeth. Forces from smaller loops are less than that of a large loop.

A labial bow or Hawley arch bar is added to the appliance to maintain the remaining anterior teeth in their normal labiolingual inclination while they are being tipped mesially or distally.

During processing and finishing, the activating loops must be protected with tin foil to keep them free of the acrylic. If the loops become imbedded in acrylic their effectiveness will be destroyed. Another factor to consider is that a space must be provided around the teeth in the direction of the required movement as the spring action will be nullified by the acrylic which surrounds these teeth on the opposite side of the forces.

To adjust or insert the appliance, the free legs of the safety spring pin are activated slightly more than the desired movement. This can be done by opening the loops of the pin approximately 2mm. The free legs are advanced in the direction of the desired movement. When the appliance is seated the springs are compressed in the edentulous area. The loops then become smaller which is the power for the movement and as the loops enlarge they become deactivated and move the teeth in the direction they are deactivating.

CRITERIA FOR THE USE OF THE REMOVABLE APPLIANCE

In the anterior segment, one must make a differential diagnosis in its usage. This appliance will work well in instances where:

- a. tooth shifting is in the immediate area of the extraction site and space is required for a bridge, and
- b. where molar, bicuspid and cuspid relation is normal in both arches and the anterior teeth have drifted into the edentulous area. A simple appliance such as this will not work where all the teeth in the upper buccal segment have drifted anteriorly into the edentulous space. To treat this, multiple band techniques must be used.

In the posterior segment, the appliance will correct simple rotation and tilting, if there is no occlusal interference with the cuspal relationships.

TYPES OF TOOTH MOVEMENT

The simplest types of tooth movement are:

Labial and Lingual Movement of Incisors

Lingual tipping can be utilized with just a Hawley labial arch bar which is formed to place a labial force on the tooth to be removed. The acrylic is cut away on the lingual surface and by gradually closing the vertical loops over the cuspid the pressure will move the tooth lingually. (Fig. 1)

Labial tipping is achieved with a single safety pin spring on the lingual surface of the tooth. The labial arch bar and clasps around the molars will prevent the appliance from unseating. (Fig. 2)

Mesial and Distal Tipping of Anterior Teeth

Mesial and distal tipping is accomplished with a single (Fig. 3) safety pin appliance for the movement of one tooth or a double (Fig. 4) safety pin appliance to move one tooth mesially and the other distally. Rotation is controlled by the labial arch wire, the acrylic butting against the tooth and by relieving the acrylic in the direction of tooth movement.

Mesial and Distal Movement of Posterior Teeth

In this case a heavier wire is used such as .028 inch wire. (Fig. 5&6) Frequently it may be necessary to free the occlusion since cuspal interdigitation may counteract the force exerted by the appliance. An acrylic bite opener may be placed as part of the appliance and an opening of 1 to 2 mm is ample.

Bucco-Lingual Movement of Posterior Teeth

Like mesial and distal movement we can use both the single spring or double spring appliance. Lingual movement may be brought about by a single spring with an inset on the buccal arch. Another method is the Hawley arch bar type appliance but used in the posterior region. The force is generated by opening and closing the vertical loops.

Rotation of Incisor Teeth

Rotation is obtained by two forces acting simultaneously. One force is from the lingual and the other from the labial with the distance between the two as great as possible. One method is the use of a Hawley labial arch acting on the labial surface, selective relief of the acrylic on the lingual to force the tooth to rotate instead of tipping lingually. The other is the safety pin spring acting from the lingual instead of a fulcrum point on the acrylic against the arch bar. The tooth is braced on the mesial by an acrylic tooth which fills the edentulous space. This double action forces the tooth to rotate in situ rather than tip. The choice depends upon the result desired. (Fig. 7)

SUMMARY

The purpose of this article is to present some orthodontic criteria to the general practitioner facing some common problems of malposed abutment teeth. With a minimum of supplies and equipment many abutment teeth condemned in the past can be utilized in the construction of dental prosthesis.

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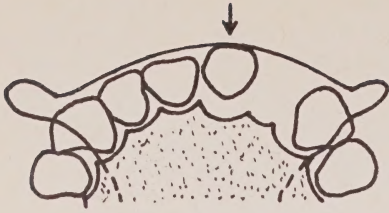


Fig. 1. Labial Arch Bar used to force 1 lingually



Fig. 2. One sided safety pin loop appliance forcing 2 labially. Remaining teeth kept in relationship to each other by the Hawley Arch Bar

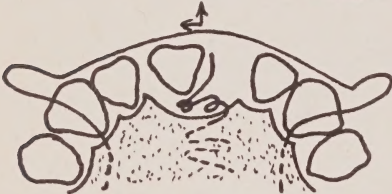


Fig. 3. One sided safety pin loop appliance used to tip 1 distally and labially



Fig. 4. Two sided safety pin loop appliance used to tip 1 mesially and 3 distally

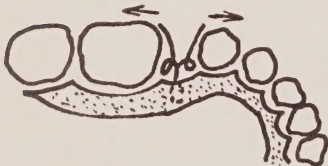


Fig. 5. One sided forcing 5 distally

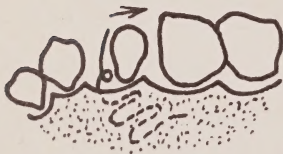


Fig. 6. Two sided safety pin loop appliance used to tip 6 distally and 4 mesially



Fig. 7. One sided safety pin loop used to rotate 1

The RCDC News

Directorate

Corps Conference

Commanding Officers of the Regular Force RCDC Units gathered in Ottawa for the 15th Annual DGDS and Unit Commanders' Conference held from 22-25 Nov 64.

The social functions connected with the Conference began Sunday evening when Col and Mrs AC Leman entertained the officers and wives of the Directorate and the visitors. A Formal Supper Dance was held Tuesday evening at the AHQ Officers' Mess which was thoroughly enjoyed by all the RCDC officers and their ladies from the Ottawa area. At the conclusion of the Conference on Wednesday, Brigadier and Mrs KM Baird held a buffet luncheon in their home prior to the departure of the visiting officers and their wives.



Front Row L to R - Col BP Kearney; Brig KM Baird; A/V/M MP Martyn, the Deputy Chief of Personnel; Col AC Leman, Chairman; Col IAL Millar; Col GR Covey.

Back Row L to R - Lt Col CM Cornish; Maj WH Harrington; Col RB Jackson; Major AW Brusso; Maj JW Fletcher; Lt Col GC Evans; Lt Col WW Anglin; Col AT Roger; Lt Col SG Bagnall; Col RHG Cunningham; Lt Col LG Craigie, Lt MB Fisk; Capt E Clark; Capt DH Evans.

Christmas Party

The annual Christmas Party was held as in previous years at HMCS Carleton Chiefs' and Petty Officers' Mess on the 18th Dec and was attended by all Service members and civilian personnel in the Ottawa area.

Brigadier Baird Attends Dental Meetings

Federation Dentaire Internationale (Armed Forces Dental Services Commission)

Brig KM Baird attended the International Conference on Military Dentistry held in conjunction with the Annual Meeting of the American Dental Association at San Francisco, California, 8 to 14 Nov at which time he presented a paper "Effective Use of Dental Manpower in the Armed Forces".

Massachusetts Dental Society

The Director attended discussions of the Council of Education of the Massachusetts Dental Society, Boston, Mass., 19-21 Jan at which time he presented a paper concerning employment of RCDC dental auxiliary personnel.

CDA Auxiliary Service Committee

At a meeting of the Canadian Dental Association Auxiliary Services Committee, held in Toronto, Ont., 22 Jan Brig Baird presented a paper on the results of current studies within the RCDC pertaining to the effective use of dental auxiliary personnel.

11 Dent Coy

The Importance of First Aid Training

The First Aid Training received by all RCDC personnel has again proved its value. When Sgt WD MacDougall of No 11 Dental Company arrived at the Delta Rod and Gun Club on 20 Sep 64 he found a six year old child bleeding and unconscious on the floor. The child had been struck by a .22 calibre bullet which had entered the neck on one side and emerged near the ear on the opposite side. Sgt MacDougall noted that the bleeding was severe, pulse not detectable and anoxia was evident.

As no one present apparently knew what to do, Sgt MacDougall covered the wound with a large pad to arrest heamorrhage, gave external cardiac massage and began mouth to mouth resuscitation. Immediately, the colour of the patient improved. Transportation to a hospital was eventually arranged, and Sgt MacDougall continued mouth to mouth resuscitation during the trip, at speeds up to 100 mph, to the Vancouver General Hospital.

Sgt MacDougall's outstanding efforts were instrumental in prolonging the life of the child until medical treatment could be available. Unfortunately, the severity of the wound was such that the child died two weeks later.

Accommodation

The new clinic accommodation at HQ BC Area is vastly superior to the former clinic. There are four operating bays, hygienists office, dark room, laboratory, dressing room, OIC's office and orderly room. The washroom and waiting room are shared with the medical staff and patients. A special Christmas party was held to say "thank you" to the Engineers who produced the new clinic.

Camp Chilliwack National Survival Exercise



Capt Y Kamachi, assisted by Sgt K Shappee and two sappers are shown treating a patient for a simulated chest wound. The RCDC acted as the medical team for this exercise.

Curling

Cpl Bob Neill's rink squeaked by Capt Dick Chernesky's rink to win the 4th event of the Norlite Mixed Bonspiel at Cold Lake.

12 Dent Coy

Easter Island Expedition

Major AG Taylor left Halifax mid-November in HMCS Scott as part of the medical research team of scientists that has proceeded to Easter Island. The object of this project is to assemble a biological portrait of an ancient and isolated people before effects and changes are caused by the influence of modern civilization. During the two month stay on Easter Island, Major Taylor will gather pertinent material such as numerous stone casts, skull radiographs, intra-oral films, side view facial photographs plus related information for later analysis by the team. The results of the analysis will be used by various dental departments to find whether there is some correlation with DMF rate, diet, hereditary and environmental factors.

Sports

Hockey: Ssgt RF Matheson, Sgt JG MacDonald and Sgt MO McDonald are coaching teams at HMCS Cornwallis while Ssgt KJ Smallshaw is coaching a team in the Dartmouth league.

WO 2 SL MacLean attended the Maritime Amateur Referees Association Hockey Officials clinic at HMCS Cornwallis and is now in action in games at HMCS Shearwater. Sgt JF Kay is also busy doing the same job for the teams in the Dartmouth league.

Capt JO Strom keeps himself in shape by playing for two teams (Infirmary and Wardroom) at HMCS Shearwater. WO 2 SL MacLean is also a member of the Shearwater team.

Judo: Capt AN Swanzey was declared Grand Champion (Black Belt) in the elimination matches of the Stadacona Invitational Judo Tournament which was held on Saturday 12 Dec 64.

Curling: Lt Col JG Butler, WO 2 JE Shiner and Sgts EL Schell and JE Clark form a team in the Cornwallis Curling League. Major HJ Cashin and Sgts AJA MacFarlan and KJ Smallshaw are members of the Halifax Garrison Curling League and Capt JH Quackenbush skips a team in the RCN Curling Club at Stadacona.

Hunting: Cpl DF Middleton is wearing Moose Antlers after dropping a 1200 pounder.

Sgt ES Knoll took leave recently with the idea in mind of getting a couple of deer..! The only luck he had was to get away from a big black bear who took off as soon as he saw him.

Golf: A late entry. Sgt LG Flesher won the Low Net and Cpl DJ Davies was runner up in the Eastern Command Golf Tournament which was held on 21 Sep.

Rugby: Capt JO Strom was a member of the Shearwater Falcons the team that won the Nova Scotia Rugby Championship.

13 Dental Coy

Farewell Party - Mr WAW Brampton Retires



Mr Brampton, Col AT Roger

A unique record of service with the Royal Canadian Dental Corps which commenced in Dec 1939 with the CA(AF) and was terminated on 29 Nov 64 when Mr WAW Brampton retired from his Part V position in the repair section at this HQ. On 18 Nov 64 a farewell dinner was held, attended by approximately forty 13 Dental Coy personnel and a good representation from No 1 Dental Equipment Depot, at which best wishes were extended to Mr Brampton for a happy future. An engraved tray was presented. Mr Brampton plans to participate with his two sons in an electronics business in Grimsby, Ont.

Farewell Party

A party was held by personnel in the Trenton area to mark the departure on posting of Sgt JRA deBlois to No 15 Dental Coy for employment in the clinic at St. Jean, PQ.

Christmas Parties

Parties were held in Trenton and other locations by HQ and clinic personnel and their wives, as part of the seasonal festivities.

Curling

Many unit personnel are engaged in curling activities and it is anticipated that a strong contingent will visit Camp Borden for the annual bonspiel in Feb.

Injury

Capt RE Warren had the misfortune to injure his thumb when he stopped a volley ball from the side lines during a game at RCAF Station Clinton. He discovered that practicing dentistry with a large cast on one hand is not feasible; however, he has now completely recovered.

WO 2 EE Mazerall Elected

WO 2 EE Mazerall was elected to the position of councillor for Ward II during the recent election held by PMQ residents at RCAF Station Trenton.

14 Dent Coy

Sgt AD Lillico, CD

Sgt Alfred Douglas Lillico, a respected member of our Corps who was born and educated at Keliher, Saskatchewan, passed away on 21 Nov 64 at the age of 42. During the Second World War Doug served from 31 Mar 42 to 22 Feb 46 in the UK, Italy, France and Germany as a member of the RCASC. After a five-year period on "Civilian Street" Doug again leaned toward service life and joined the RCDC in Feb 51 and was posted to 12 Dental Coy. His post war service also included tours with DGDS, 1 FDU, Europe and latterly with 14 Dental Coy from 16 Jul 63 until his untimely death.

Although Doug in late years was plagued with illness this did not deter him from carrying out his duties in his typical cheerful and accommodating manner. The sympathy of all ranks is extended to Mrs Lillico and family.

15 Dent Coy

On page 5 is the report of a brief conversation last fall between Queen Elizabeth II and two RCDC officers, Major JLM Masse and Capt JFJ Laporte on the occasion of the Governor-General's Reception for Her Majesty at Quebec City during the Royal Visit.

Curling at Goose Bay

It was unfortunate that a "once in a lifetime" event, which occurred early last year, was not previously mentioned. An eight-ender in curling, is considered a greater feat by some people than a hole in one in golf, but not to Mr Curling himself, Capt Ben Parent, did just this on his way to winning a Bonspiel at the Goose Bay Curling Club. It was the first eight-ender recorded at the club.

1 Dent Det

Accommodation

The old RCDC School on Sussex St in Ottawa, that became No 1 Clinic AFHQ in 1957 has been vacated. The CFHQ clinic is now located in a new, air conditioned building at 100 Gloucester St. This occasion marks the end of an era and finally provides CFHQ with a modern clinic. It is expected that photos and a description of the clinic will be published in a forthcoming issue.

A new full time dental clinic was opened at the National Defence Medical Centre with Maj JJY Turcotte in charge.

RCDC School

Distinguished Visitors

The Honourable William Earl Rowe, Lieutenant Governor of Ontario, visited the RCDC School 3 Nov. He showed particular interest in the prosthetic and national survival aspects of the RCDC School and spent considerable time conversing with the staff.

Lieutenant Colonel JFF Roell, Regional Commander of the Province of Overijssel, Royal Netherlands Artillery, visited the RCDC School 6 Nov, and was most impressed with the Canadian Dental training facilities.

Colonel TB Mahone, Commanding Officer US Army Interchange Officers Group, visited the RCDC School 16-17 Dec. Major DH Newell, a US Exchange Officer now at the RCDC School, showed Colonel Mahone the training and treatment facilities of the School.

Sports

In addition to the annual curling fever which seems to have infected the majority of the personnel, the somewhat rougher contact sports of hockey and judo have gained considerable support from some of the younger members of the RCDC School. Capt Rausch's enthusiasm for judo has waned a little since he broke his wrist in an "encounter" with one of his "adversaries" in late November.

1 Dent Eqpt Dep

Curls Eight End Game



A rink skipped by Major JW Fletcher with Sgts Palmer and Strub in the line-up scored the first 8-ender ever curled in the Camp Petawawa Curling Club. The fourth member of the rink, Ssgt Hutchinson who missed his first game of the year because of duty is also missing out on all the glory. A repeat of this event is not planned before February the 19th or 20th.

Sgt RH Palmer (Vice), Maj JW Fletcher (Skip), Sgt AL Strub (2nd)

Elected to Office

Major JW Fletcher has been appointed Chairman of the Camp Petawawa High School Board for 1964/65.

Capt CA Casterton was elected President of the Camp Petawawa Golf Club for 1965.

Turkey for Christmas

There was no shortage of turkey at Major Fletcher's during the festive season, both he and Mrs Fletcher bagged a bird in the local mixed bowling league.

Christmas Party

A very enjoyable Christmas Party complete with Santa Bob Mills was held at the Depot for the children on Dec 12th. The parents got together with the personnel of 3 Dental Clinic for a most successful "adult" party on Dec 15th.

4 Fd Dent Coy

Change of Command, 4 CIBG

A change of command took place at HQ 4 CIBG with Brig A James Tedlie replacing Brig MR Dare on 9 Dec.

Annual Broomball Game

The annual broomball game between the officers and Sr NCOs of HQ 4 CIBG took place on 28 Dec with the Sr NCOs the winners.

4 CIBG Yuletide Bonspiel

The 4 CIBG Yuletide Bonspiel took place at Fort York commencing 28 Dec. A dental rink from Fort Henry consisting of Sgt Tom Sullivan, Lt Col George MacDougall, Sgt Art Tait and Sgt George Plante (non-dent) were "runners-up" in the main event.

Professional Meetings

Two Dental Professional Meetings were held during the quarter:

- (1) A meeting at Fort Henry on 5 Nov with the following papers presented:
 - Simple Procedures in Orthodontic Practices - Col CH James(RADC)
 - Paper on TM Joint - Capt A Davis(US Army).
- (2) A meeting at Fort St Louis on 10 Dec with following papers presented:
 - Latest Concepts of Periodontal Surgery - Capt P Morin(RCDC)
 - White Lesions of the Oral Mucosa - Maj L Reynolds(RCDC).

NCOs Refresher Training

Two meetings were also held by the unit NCOs during the quarter with the following papers presented:

- (1) Dental Documentation - WO2 Riddell
Dental Stores Indenting - Ssgt Sullivan
History of the DT Laboratory - Ssgt Jewson
- (2) Maintenance and repair of clinic equipment - Sgt AJ Tait.

CBU (UNEF)

Leave and Tours

In October, Sgt Reid and Lsgt Wylie spent four days in Cairo. Major Gaudet was on tour for four days in Jerusalem in November; Sgt Chase took three days to go to Jerusalem on tour and Cpls Hannay and Herrett returned to Canada for 21 days' leave with their families at Christmas and New Years.

Special Events

Those remaining in Camp, joined in the merry making and celebrations of the holiday season. Many functions were held in the different messes of Camp Rafah, Gaza and others. Officers and other ranks joined together sharing drinks and food which were most lavishly provided.

Notice

The 50th Anniversary of the RCDC will be commemorated in the April issue of The Quarterly. It is expected that extra copies of this issue will be available at a nominal price for those wishing to have one of their own.

Unit commanders will be canvassed for an estimate of the number of additional copies required.

Arrangements are being made to have a souvenir key chain available for sale. Details for obtaining this souvenir will be sent to unit commanders in the near future.

Welcome to the Corps

Cpls WB Looker, JW Shore, RC Wormington, Ptes JA Atherton, HE Ayerst, RW Bowness, JDW Clark, JD Cormie, RW Danyluck, HEM George, FN Hagglund, JAP Hogan, RK James, H Kalmet, JH MacGillivray, GK McDonald, JB McEwen, CPAL Morissette, JP Pitchford, FW Porteous, JR Ritchie, DF Ross, EJ Schultz, JLA Violette, Mrs ML Jensen, Miss RA Vennard

Professional Training

University of Michigan - Ann Arbor, Michigan

Major WH Carter	Periodontics	30 Nov - 11 Dec
Major RJK Pyne	Periodontics	30 Nov - 11 Dec
Major MP Quinn	Complete Dentures	4 Jan - 15 Jan

US Naval Dental School - Bethesda, Maryland

Major PE Fafard	Oral Surgery	4 Jan - 19 Feb
Major RH Headley	Partial Dentures	25 Jan - 29 Jan

Ent Air Force Base - Colorado Springs, Colorado

Major DJ MacPhee	Oral Surgery	30 Nov - 11 Dec
Major DH Skinner	Oral Surgery	1 Feb - 12 Feb

RCDC School - Camp Borden, Ontario

Captain to Major Qualifying Course 14 Sep - 23 Oct

Captains HW Brogan, L Dombowsky, EW Gazo, JJ Houde, BG Johnston, Y Kamachi, PP Morin, JG Parent, RJ Paturel

CFMSTC - Camp Borden

Major AG Andrews	NBCW3	4 Jan - 14 Jan
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NBCW School - Camp Borden

Lt RG Peebles	Officers Basic Course	23 Nov - 11 Dec
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Training

RCDC School - Camp Borden, Ontario

Dental Technicians Laboratory Group 4 Course 11 May - 19 Jun

Sgts M Beauvais, A Bourgeois, T Hussey, DB Playford, H Mackwort, JV Minnelli, GH Storms and Cpl AF Randall.

Senior Technician Laboratory Course 16 Nov - 11 Dec

WO2 DD Robertson, Ssgt LG Brown, Sgts KE Laurence, JF Marchand, GP Ryder.

Dental Technicians Clinical Group 3 Conversion Course 8 Jun - 19 Jun

Ssgt AS Field, JA Fraser, VR Kidd, RJ Lowery, RF Matheson, SE Robertson, JH Sadler, HD Wagstaff and Miss LJ Colter, Miss EC Whebell, Miss IM White.

Dental Technician Laboratory Group 3 Course 8 Sep - 16 Oct

Sgt AE Werkmann, Cpls JC Bleakney, PAP Hughes, Cst C Sabine-Paisley, Mr RG Symonds (DVA).

Dental Assistants Group 1 Course 28 Sep - 6 Nov

Ptes GG Albertson, AM Burns, WD Buxton, SD Delnick, CW Deveaux, PE Harkin, WP Harmer, AH Peck, DS Smith, PA Timmers, RG Todd, WE Tweed, J Van Hemert, LE Wannamaker, JM White.

Senior NCO Special to Corps Part B 26 Oct - 6 Nov

Sgts EJ Lansey, WJ Parker, SD Posyluzny, Cpls PJ Dumas, EA Duve, NAI Eady, PA McCoy, PD Peterson, CFM Shergold, B Vandervaaert.

Technical Dental Therapist Course 11 Jan - 30 Apr 65

WOs2 VO Blackmore, N Fediuk, H Franzgrote, JM Sherry, JM Tapp.

Dental Technicians Clinical Group 3 Course 11 Jan - 25 Jan 65

Ssgt G Shand, Cpl RB Johnson, Miss F Fortin, Miss ME Ward.

Dental Technicians Laboratory Group 1 Course 11 Jan - 28 May 65

Cpls GN Fathers, JJ Gallivan, BF Hannah, DK Mand, DF Middleton.

1 Dental Equipment Depot - Camp Petawawa, Ontario

Dental Storesman Group 3 Course 1 Jun - 26 Jun

Ssgt JP Carrier, Cpls PJ Dumas, GM Wadden.

Dental Equipment Technician Group 1 Course 18 Jan - 9 Apr

Cpls JRY Gratton, MD Longford, H McRae, Ptes CW Deveaux, PE Harkin.

Training with Industry

Ticonium - Albany, NY 27 Jul - 31 Jul

WO 1 EC Carpenter, Ssgts EMB Everett, RG Stewart.

SS White Company - Staten Island, NY 19 Oct - 23 Oct

Ssgt JW Hutchinson.

Promotions

To Ssgt - LR Barrett, J Dion, JAJ Fret, WA Jackson, EJ Lansey.

To Sgt - ES Beattie.

To Cpl - ZWJ Mitrikas, CSB Heather.

Retirements and Releases

Sgts AT Nicholson, KLM Wallace, LAWS EJ Beers, MM Carnegie, MYC Daigneault, JH McDonald, Mr EH Ciesielski, Mrs R Dryland, Mrs J Vaness.

Vital Statistics

Births

Son - Capt & Mrs HW Brogan; Pte & Mrs WD Buxton; Maj & Mrs HJ Cashin; Capt & Mrs JGB Dionne; Capt & Mrs N Goldberg; Cpl & Mrs WD Horne; Pte & Mrs RK James; Maj & Mrs DJ MacPhee; Capt & Mrs RFC Oswin; Cpl & Mrs LH Pion; Cpl & Mrs RE Thompson; Sgt & Mrs RJJ Tremblay; Cpl & Mrs RC Wormington.

Daughter - Maj & Mrs JOL Bourget; Capt & Mrs GDV Dippel; Capt & Mrs JGL Giguere; Pte & Mrs H Kalmet; Maj & Mrs IAC MacDonald; WO2 & Mrs SL MacLean; Sgt & Mrs FL Martell; Sgt & Mrs RH Palmer; Capt & Mrs GE Purcell; Cpl & Mrs JW Shore; Capt & Mrs WJ Sinclair; Pte & Mrs J Van Hemert.

Marriages

Sgt JIJ Boulanger to Miss MMC Mondor; Pte CW Deveaux to Marily Joan Roberts; Capt MH Harach to Janet Helen Maciborski; Cpl DH Hardy to Jeanne Crevier; Lt Col HR Kettys to Stella Beatrice Allison; Pte GK McDonald to Mary Maricia Benoit; Cpl RG Peverill to Patricia Ann Merson; Capt AN Swanze to Patricia Diane Whalen; Pte PAG Timmers to Linda Merle Latimer; Pte J Van Hemert to Kathryn Ann Keiran; Capt JWC Walls to Irene Ann Sosnowski; Cpl PD Whynott to Lucy Marie Plourde; LAW MM Delorey to Mr Albert Carnegie; LAW MJ Hebert to AIC WC Gregerson (USAF); LAW EC MacRae to LAC TM James; LAW JM Roberts to LAC Patterson.

Deaths

Our sympathy is extended to Capt WR Kyle whose Mother died suddenly on 2 Sep 64; to Cpl CStC Sabine-Pasley on death of his Father Dec 64.

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TORONTO 2

The

ROYAL CANADIAN DENTAL CORPS

Quarterly



1915



1940



1965

Commemorating
Fifty Years of Service

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The RCDC Quarterly

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General of Dental Services for the Canadian Forces

Editorial Board: Colonel AC Leman
Lt Col SG Bagnall
Major WH Harrington

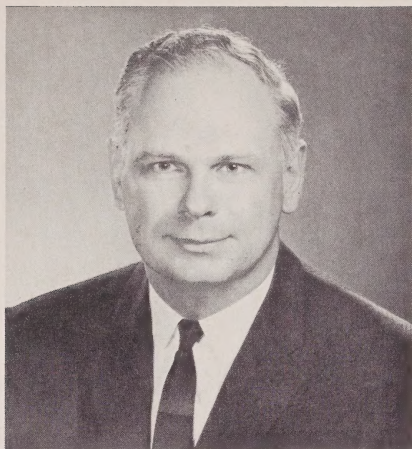
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for the Canadian Forces,
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OTTAWA 4, Ontario.

Cover Photograph

Dental Parades 1915, 1940, 1965



It is with pleasure that I take this opportunity to congratulate the Royal Canadian Dental Corps on its Fiftieth Anniversary of service with the Canadian Armed Forces.

During this period the Corps has fulfilled its role under all circumstances in providing a high calibre of dental health service to the Canadian Forces. The tri-service role of the Corps since 1939 has permitted the ready adoption of new techniques and equipment and has resulted in a high standard of dental treatment to all three services on an equitable basis. It has thus required little modification in order to adapt to the unification of the Canadian Forces.

The RCDC record of service is one of which all personnel may be justly proud. My best wishes for the tasks that still lie ahead of you.

Paul T. Hellyer

Paul T. Hellyer



The fiftieth anniversary of an individual or an organization is an occasion for congratulations on the past and for looking forward into the future. The Royal Canadian Dental Corps is indeed to be congratulated on its past. It has played its part as a member of the Forces in war and peace, in Canada and throughout the many theatres in which Canadian forces have been deployed around the world, in a manner that merits the highest praise.

Your aim in providing treatment to all servicemen and women under all conditions has always been met and the standard of service has steadily advanced to keep abreast with new developments in the dental profession.

I congratulate you on this occasion of your Fiftieth Anniversary and extend my best wishes for the continued success of the Corps.

F. R. Miller

(F. R. Miller)
Air Chief Marshal
Chief of the Defence Staff



This issue of The Royal Canadian Dental Corps Quarterly is dedicated in its entirety to commemorating the fifty years of service just completed by our Corps. It is true that for some 20 years of this time in the period between the two world wars, we could not really be classified as an organized and effective component of the Canadian Forces. This, in a way, proved to be a fortunate circumstance since on our reorganization in 1939 it was possible for our farsighted and energetic founders to establish the Corps on a modern and progressive basis; a foundation which stood us well during the establishment of our peacetime organization in 1946 and is standing us in good stead now during these days of integration and unification.

The pages which follow are not an attempt to present the history of our organization during these fifty years. It is an effort only to recall some of the events, the people or the places that have been involved in our evolution from the CADC, through the CDC to the RCDC. It is regrettable that more complete documentary and photographic records were not maintained for our early years, but at any rate, the editorial board has made the most of what was available. Those of us now serving who enrolled in the Corps in the early days of the Second World War, and there are 36 members of the RCDC (Regular) who have been serving continuously for over 25 years, will no doubt be familiar with many of the faces and locations shown in this issue. Those personnel of more recent vintage may, perhaps, be encouraged by this brief portrayal of the Corps background to look further into our history and development since 1915.

The RCDC has always enjoyed an intimate relationship with our confreres in the civilian profession and much of our progress has been a direct result of this cooperation. Our common aims, in many instances, have dictated the policy which led the Corps during periods of adversity and which ultimately brought us to our enviable position in the Armed Forces. I am sure that with their goodwill and support and our own spirit of service, the future years are bright with the promise of continued achievement.

(KM Baird)

Brigadier

Director General of Dental Services
for the Canadian Forces

DIRECTORS GENERAL OF DENTAL SERVICES



Brigadier Frank Melville Lott,
CBE, ED, DDS, BSc, MSc, PhD,

1 September, 1939 - 31 January, 1946,

1914-1918 served with 34th Ontario Regiment,
Canadian Engineers and 1st Cdn Div Signal
Coy; CADC from 16 Apr, 1937,

Decorations: CBE - 1945; ED - 1945.



Colonel Dwight Samuel Coons,
OBE, MM, ED, DDS,

1 February, 1946 - 27 September, 1946,

1916-1919 served with 173rd Bn CEF, 54th Bn,
Argyle & Sutherland Highlanders Feb 1926,
CDC from 20 Sep, 1939,

Decorations: OBE - 1946, MM - 1918,
ED - 1941.



Brigadier Elgin McKinnon Wansbrough,
OBE, MM, ED, QHDS, (MSc), DDS, FICD, FACD,

28 September, 1946 - 31 October, 1958,

1916-1919 served with Cdn Machine Gun Corps,
Peel, Dufferin & Halton Regt Jul, 1927,
CDC from 27 Oct, 1939,

Decorations: OBE - 1946, MM - 1919,
ED - 1943, CD - 1952, QHDS - 1953.

FIFTY YEARS OF PROGRESS

1915-1938

Organization of the Canadian Army Dental Corps in April, 1915 was the first formal recognition, on the part of the authorities, that the maintenance of dental health was an essential consideration in planning for the complexity of problems that inevitably arise in the Armed Forces. Dental Services must be provided on a comprehensive scale and under all circumstances if personnel were to remain effective and capable in the performance of their designated tasks.

Various references to dental problems of soldiers can be found in history books of the past three hundred years. However, it was not until the South African War in 1899 that a dentist practised in a theatre of war. Along with members of the British Dental Association two Canadians served in South Africa, Dr. David Henry Baird of Ottawa, father of Brigadier KM Baird and Dr. Eugene Lemieux of Montreal.

In 1902 the Canadian Dental Association began the petition to the Canadian Government for organization of a dental corps for the armed forces. General Order 98 dated 2 July, 1904 authorized dental practitioners to become part of the Canadian Forces as a part of the Armed Medical Services. The original establishment of 18 was gradually filled between the years 1904 to 1907. The dentists were not on full duty but were called out on headquarters authority and were only paid for those days they were actually employed.

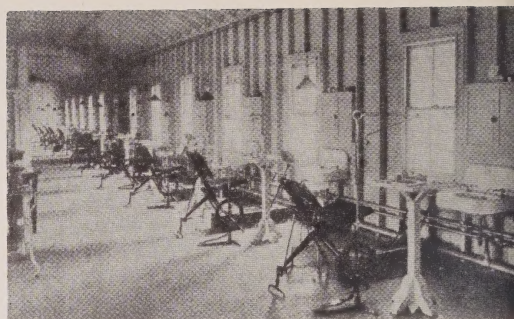
The necessity for forming a Dental Corps did not become obvious until late in 1914 when the military authorities realized the number of recruits rejected because of defective teeth. Members of the dental profession readily volunteered their services in an effort to resolve the dental problem and as a result the first dental clinic was established in a cow stable at the Exhibition grounds, Toronto by April, 1915. The military authorities soon realized that this system was inadequate and the decision to form the Canadian Army Dental Corps was published as Militia Order No 162, May, 1915.

The CADC was established as a separate corps, directly responsible to headquarters for the provision of dental treatment and those dental officers already serving with the Canadian Army Medical Corps were transferred to the new corps. It is interesting to note that the first draft of 30 dental officers, 34 non-commissioned officers and 40 other ranks was in England and at work by July, 1915.

The original establishment authorized the attachment of dental officers to various units and formations. Apparently, this did not take place and most of the dental officers were attached to medical units similar to the practice in the British Army dental service.



CADC Headquarters, Camp Borden, Ont.
about 1916. This building housed
the clinic, laboratory and QM Stores



Headquarters Clinic, Camp Borden



The dental clinic, Exhibition
Grounds, Toronto, Ontario

Although there are few, if any, documentary or pictorial records available to perpetuate the efforts of the Canadian Army Dental Corps in its early years there are excerpts from various publications that are very complimentary.

Oral Health, October 1915 published the following from the London Evening News about the CADC:

"If any doubt existed as to the need of the Corps' existence, a visit to any of the various clinics and laboratories would soon dispel it. Every branch of dental work is done with the dispatch and thoroughness that characterize a city office."

"Already information regarding its establishment and equipment is being sought by other countries with a view to adoption in their own armies."

A comment of Sir Edward Kemp describes the situation very well:

"It will be of interest to the Canadian public to know that every man in the Canadian Army in England is dentally fit."

"Surely it is of very great importance that the general public should know what the army dentists are doing. It is an achievement that is second only to that of the A.M.C." (Army Medical Corps - Ed.)

The President of the British Dental Association said:

"The Canadian Army is the only army in the whole of the world that attempts to send its soldiers to the front "dentally fit", and keep them fit."

In the same connection Dr. W.H. Dolamore of London, England, President-elect of the same Association said:

"It is difficult to criticize the arrangements in our own army, but one feels that it might be possible and desirable to follow the example which the Canadians have set."



Dental Clinic, Bramshot, England 1917-18

An authoritative comparison of the Canadian Dental Corps with that of the entire British Forces is given in the following extract from a report by the British Dental Association to Sir Auckland Geddes, the Minister of National Defence, in October, 1918:

"In numbers alone, the fact that the whole of the British forces have only a little more than twice the number of dentists belonging to the Canadian Army Dental Corps is surely very significant, and as regards organization and administration, the inferiority, as compared with the Dominion forces, is equally manifest to those who are familiar with the details."

Such emphasis of approval demonstrates the very high esteem for Canadian Army dentistry at the termination of the war.

Following the war, the Corps actually had an increase in establishment as the decision was made to make all service personnel dentally fit prior to release from active service. This monumental task was completed, apparently, by December 1919. The Dental Corps was then demobilized and ceased to exist as a war unit.



No 4 Detachment CADC 1917

District Dental Officer Conference in Ottawa, Spring 1918



Front Row L to R: Lt Col W.W. Wright, Maj L.N. Trudeau, Col W.B. Clayton, Maj G.K. Thomson, Maj F.H. Bradley.
Back Row L to R: Maj J.M. Magee, Lt Col W.G. Thompson, Lt Col N.T. Minogue, Lt Col F.P. Shaw, Lt Col J.M. Wilson.

In September, 1920, the Canadian Dental Association approached the Canadian Government pointing out the requirements for a dental component in the armed forces. Subsequently the Corps was again authorized in June, 1921, on a peacetime basis. However, little interest was shown by the dental profession as a whole and very few, if any, appointments were made to the forces. The Medical Corps then took on the problem of administering to the dental needs and had the necessary dental treatment provided by civilian practitioners under a contract arrangement.

This situation prevailed until 1935 when the Corps was reorganized along the lines that were used in France during The First World War, with the dental service placed under the Director General of Medical Services in Ottawa. Dental officers were added to the establishments of a Casualty Clearing Station and a Field Ambulance. This plan was not supported by the dental profession resulting in an unsatisfactory and uncoordinated state when war broke out in 1939.

1938-1946

A committee of the Canadian Dental Association had held several meetings with Defence officials beginning in May, 1938. A plan for mobilization of the Dental Corps, based on a thesis prepared by Dr. F.M. Lott, was well advanced by September 1939. At the outbreak of war, Army Headquarters called out Dr. Lott as a captain to organize the Corps. He was then promoted to lieutenant-colonel and assumed the duties of Chief Dental Officer of the Armed Forces.

The details, plans and problems of mobilization in the early days of The Second World War have been duly recorded in "The Story of the Royal Canadian Dental Corps". It is interesting to note that the first clinic was established, as in The First World War, at the Cow Palace in the Toronto Exhibition grounds. Formation of the 1st Divisional Dental Company, Canadian Active Service Force (CASF) commanded by Lt Col W.G. Trelford, was started early December, 1939 and this unit sailed with troops of the 1st Division CASF to arrive in the Firth of Clyde on the 30th of December, 1939.

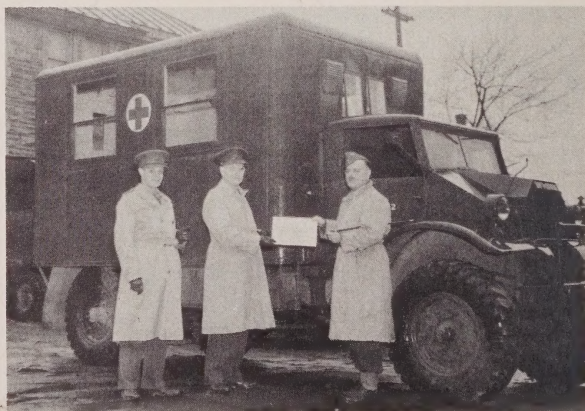
The initial mobilization plan called for the formation of dental companies in each of the eleven Military Districts in Canada. As the strength of the armed forces increased it was necessary to establish more companies. The final build-up in Canada was three RCN companies, thirteen Army including companies at Camp Petawawa and Camp Borden, and six RCAF with the Central Stores in Ottawa.



No 10 Dental Clinic Camp Petawawa, July 1941

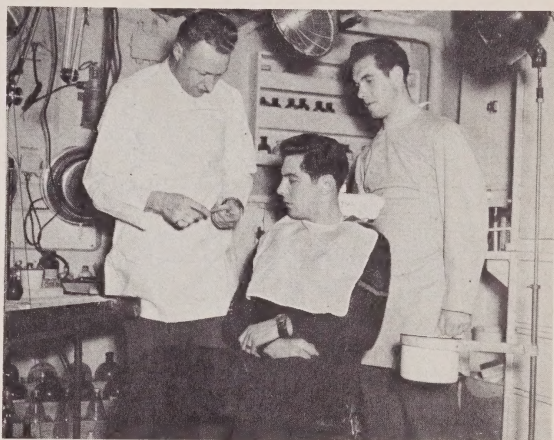
The all-out war effort of the Canadian people was expressed in several ways, one was the donation of funds by many organizations towards the cost of purchasing mobile dental clinics.

Capt J.P. Whyte, on behalf of the Saskatchewan Hockey Association presenting a mobile clinic to Lt Col G.L. Cameron, DSO, acting for the Director of the Corps. On the left is Lt Col D.S. Coons to witness the occasion.



Overseas the total number of dental companies reached one RCN, three RCAF and fourteen Army companies. These were widespread throughout England, Europe, Italy and Africa and were efficiently supplied with dental stores by the Central Dental Depot, Acton, England, a Base Dental Stores in Northwest Europe and two Army Dental Stores, one in NW Europe and one in Italy.

Capt Bill Nursey and Sgt (now WO1) J.E. Shiner with a patient on board HMCS Thetford Mines, Londonderry Northern Ireland, 1944



Dental Corps personnel served with the three services in all war theatres and provided comprehensive dental treatment closer to the front lines than any other nation. The portable dental kits and mobile dental vans made this treatment feasible.



Left: Treatment in the field during Exercise Spartan England, 1943 - a forerunner for Overload, the Normandy Invasion, which was to come later



Right: During the warm weather in the Mediterranean area



No 5 Company Canadian Dental Corps



Left: Dental clinic of No 9 Coy CDC crossing the Rhine River, 1945



Above: HQ No 4 Coy CDC, Farnborough Hants May 1942. Col F.M. Lot
Capt C.G. McKenna, Lt Col E.F. Allen, Capt S.K. Wetmore, and
Capt C.S. Slack



England, October, 1941

Right: A mobile clinic in Holland



Some unit commanders in England 1944.
 Top L to R - Lt Cols R.A. Gilbert;
 E.M. Wansbrough; L.E. Kent; Cols
 J.F. Edgecombe; L.V. Janes; Lt Cols
 R.W. McDougall; W.A. Trelford; C.L.
 Strachan; J.F. Blair. Bottom L to R
 G.L. Frawley; R.F. Denholm; E.F.
 Allen; W.C. Dawson; R.S. Langstroth.



1946-1965

The CDC was reorganized as a component of the peacetime forces effective 1 Oct, 1946. The authorized establishment was 93 dental officers and 147 other ranks for the Directorate, No 11 Coy RCDC (Army), No 12 Coy (Navy), No 13 Coy (RCAF) and No 1 Central Dental Stores. On 15 Jan, 1947 His Majesty King George VI approved the grant of the title "Royal" for the Corps.

This establishment remained fairly constant until two more companies were authorized in 1950 because of an increase in the size of the armed forces, No 14 Coy, Winnipeg in June, and No 15 Coy at Montreal in November.

Korea

Canada was one of the members of the United Nations that was invited to assist when war broke out in Korea, June, 1950. The 20th (later the 25th) Canadian Field Dental Unit was established Aug, 1950. The unit was disbanded November, 1954 but two dental sections continued to serve in Korea and Japan until March, 1955, one section remained serving Korea until the fall of 1957.



No 20 Field Dental Unit in Fort Lewis prior to the despatch of 25 Canadian Infantry Brigade to Korea in 1951



Personnel of 25 Canadian Field Dental Unit Sep, 1954

Europe

The decision was made at the NATO meeting April, 1949 to form the 27th Canadian Infantry Brigade for service in Europe. As part of this brigade No 27 Canadian Field Dental Unit was established May, 1951. This unit has since been redesignated No 4 Field Dental Company and continues to serve with the brigade in Germany.



Personnel of 4 Fd Dent Coy in 1959

The NATO agreement also established a RCAF Fighter Wing at North Luffenham, England under the operational control of the RAF. It was decided the following year that a RCAF Air Division with a Headquarters and 4 Wings would be established in continental Europe. As a result, No 1 Air Division, RCAF became an Operational Command, 1 October, 1952. The formation of 35 Field Dental Unit was subsequently authorized 29 April, 1953 to provide dental services to personnel of the Air Division.



Personnel of 35 Fd Dent Unit 1960

Middle East

Following the Suez crisis in 1956 the United Nations was called on to provide a peacekeeping force in the Middle East. National contingents from Canada, Brazil, Denmark, India, Norway, Sweden and Yugoslavia make up the United Nations Emergency Force presently in the Gaza strip. India is the only country that does not have its own dental service with this force. The senior Canadian dental officer holds the appointment of Senior Dental Staff Officer UNEF and is responsible to the Commander UNEF on all matters concerning the dental health of the Force.

Two RCDC dental sections were despatched to the Middle East Nov, 1956, the following year this establishment was increased to three with administrative support for a total of ten personnel.



DGDS at CBUME in 1961



Cpts J.J.N. Wright and F.C. Buschlen with Sgt R.F. Matheson are shown with natives and their camels

Cyprus

The most recent overseas commitment for the RDC has been the dental section now in Cyprus as an element of the Canadian contribution to that UN peacekeeping force. This force was organized in Mar, 1964 on a six month rotation basis.



Cpl T.R. O'Mara, Cpl R.J. Rutledge and Capt R. MacDonald in front of the clinic in Cyprus

The Colonel Commandant of the RCDC

Each corps in the Canadian Army is entitled to a Colonel Commandant, the tenure of office for which is normally five years. The purpose of this appointment is to provide a senior and experienced officer who is available to the corps in the capacity of advisor and father confessor and who promotes and fosters the general 'esprit de corps'.

In the RCDC the following senior officers have held this appointment:



Brigadier F.M. Lott, CBE, ED
18 Jul, 46 - 17 Jul, 54



Colonel G.L. Cameron, DOS, OBE, VD
26 Oct, 54 - 29 Apr, 58
(Deceased)



Colonel J.F. Edgecombe, OBE,
ED, CD
6 Jan, 60 - 15 Jan, 65



Brigadier E.M. Wansbrough, OBE, MM,
ED, CD
16 Jan, 65 -

The Queen's Honourary Dental Surgeons (QHDS)

In 1953 Her Majesty, Queen Elizabeth II, graciously consented to bestow the honour of the title QHDS to selected regular force and militia officers of the Corps. Senior officers who have been so honoured are:

RCDC(R)

Brigadier	EM	Wansbrough
Brigadier	KM	Baird
Colonel	GB	Shillington
Colonel	HL	Harris
Colonel	IAL	Millar

RCDC(M)

Colonel	JF	Edgecombe, St. John, N.B.
Colonel	LE	Kent, Lachine, P.Q.
Colonel	JP	Whyte, Swift Current, Sask.
Colonel	CS	Lea, Calgary, Alta.
Colonel	Hk	McLaren (deceased)
Colonel	DW	Henry, Montreal, P.Q.
Colonel	CE	Woods, Ottawa, Ont.
Colonel	JE	Merritt, Halifax, N.S.

In the Militia appointments are for a period of two years while in the regular force it is for the tenure of office.

The Board of Consultants for the RCDC

Authority was granted in 1960 for a Board of Consultants to the RCDC. The primary function of these consultants is to advise the Director General of Dental Services in the various specialized fields of dentistry which affect dental services for the Canadian Forces. Additionally, the Board assists in solving specific dental problems that may arise and may advise on aspects of treatment policy and the training of dental officers and auxiliary tradesmen.

At the present, the Board of Consultants consists of the following distinguished members:

Dr	JE	Abra, Winnipeg	-	Orthodontics
Dr	JP	Coupland, Ottawa	-	Oral Surgery
Dr	DW	Gullett, ex-Sec-Treas of CDA	-	Dental Ethics
Dean	JP	Lussier, University of Montreal	-	Dental Research
Dean	Hk	MacLean, University of Alberta	-	Oral Diagnosis and Roentgenology
Dean	JD	McLean, Dalhousie University	-	Restorative Dentistry
Dean	J	McCutcheon, McGill University	-	Prosthodontics
Dean	JW	Neilson, University of Manitoba	-	Periodontics

Two members retired from the Board in 1963:

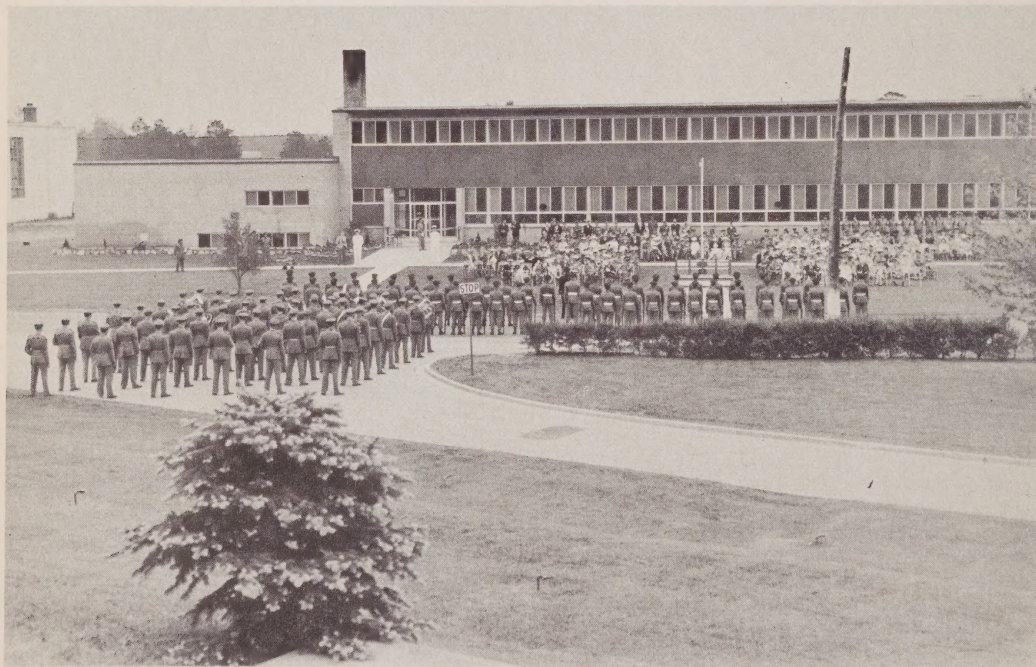
Dr	DM	Tanner, Dept of Veterans Affairs	-	Oral Surgery
Dr	RJ	Godfrey, Toronto, Ont	-	Prosthodontics

Training

Training in both the professional and military aspects and for trade advancement is an important role of the Corps. During the Second World War provision was made for the instruction of officers and other ranks. Various professional courses were available to dental officers serving in England and Europe. In Toronto a Technical Training Centre was established December, 1943 and courses were conducted there until November, 1945. The training at this Centre included courses for officers, laboratory technicians and dental assistants.

Following the reorganization of the Canadian Army Regular October, 1946 provision was made for each Corps to have a school or a training wing. The initial training element of the RCDC was a Technical Training Wing on the establishment of No 11 Coy (Army) with headquarters in Edmonton, Alberta. The Training Wing, however, was actually located in the Mines Building at Sussex Drive in Ottawa, and training commenced there August, 1947. A further change came about in November, 1947 when a separate establishment for the RCDC School was authorized.

The School remained in Ottawa for ten years until authority was granted to construct a new Corps School at Camp Borden, Ontario. Construction was completed April, 1957 and provided a training facility for dental officers and auxiliary dental personnel second to none in Canada. The formal opening of the School was on 13 June, 1958 by the Honourable George Pearkes, Minister of National Defence.



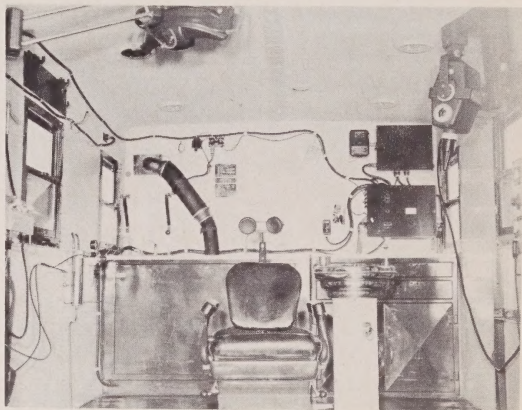
Official Opening of the RCDC School

Accommodation and Equipment

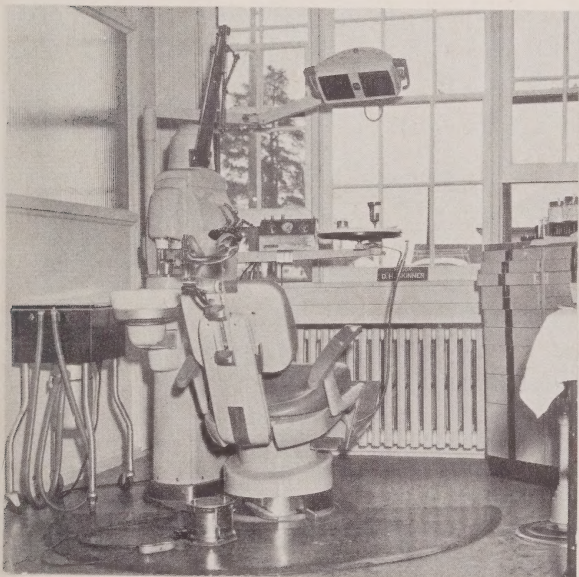
Plans for the improvement of RCDC accommodation and the procurement of stores and equipment are under constant review. Although the field dental kit has remained basically the same, over the years many improvements have been made. In the past decade the mobile dental clinic has undergone considerable change in order to incorporate the more modern items of equipment.



India - 1945



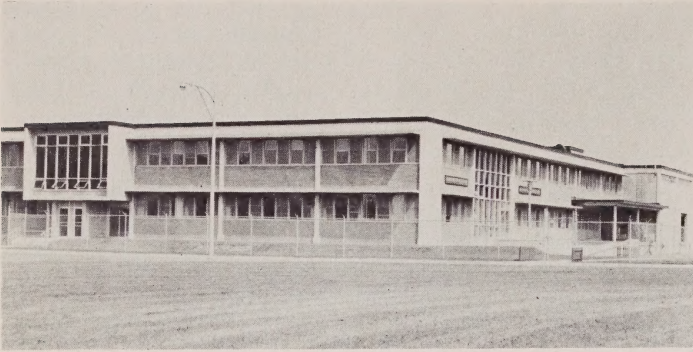
Interior of Dental Van - 1964



A renovated and newly
equipped treatment bay
at Camp Petawawa

No 1 Dental Equipment Depot

Throughout the Second War the Central Dental Stores was located in Ottawa, occupying various accommodation until adequate space was secured in the Ordnance Depot at Plouffe Park. In 1960 the Equipment Depot was relocated in Camp Petawawa in a large new building.



1 Dental Equipment
Depot, Camp Petawawa,
Ont.

The Annual Corps Conference

The first Corps Conference was held in Ottawa in January, 1947. Since then, with the exception of 1949, 1951 and 1958 the conference has been an annual event with representatives from all units in the Corps. These meetings have served over the years as a means of establishing and developing much of the policy and many of the procedures now in effect in the Corps today.



Rank Structure of the RCDC

The growth and expansion of the Corps with greatly improved career possibilities may be illustrated by the following comparison of rank structures:

	Brig	Col	It Col	Major	WO1	WO2	Ssgt
1946	0	1	7	23	0	8	7
1965	1	7	21	65	10	54	24

The RCDC Militia

The historical background of the Militia has recently been published as an article by Col I.A.L. Millar in the October, 1964 issue of the Quarterly.

Prior to the current reduction in the Militia organization the RCDC(M) consisted of 12 Dental Units and the Dental Advisory Staff. The re-organization of the Militia provides for a maximum of 115 dental officers plus Sgt dental assistants attached to major Militia units. Arrangements have been approved to provide for liaison and training assistance in Commands by the employment of selected senior Militia dental officers from the Supplementary Reserve.



A group of Militia personnel on parade at Niagara-on-the-Lake 1955

The Dental Officer Subsidization Plans

Financial aid to dental undergraduates began during the Second World War to compensate students whose courses had been accelerated to advance the date of graduation. This plan accepted dental students and enlisted them into the Army as private soldiers granting them subsistence allowance. After graduation they were commissioned as lieutenants and served in this rank for one year before promotion to captain.

Since this early plan three different post war plans have been offered to dental undergraduates. These made available various amounts of financial aid throughout the course in return for service with the RCDC after graduation.

The Dental Officer Subsidization Plan (DOSP) now in effect, commenced in April, 1961. An undergraduate is now offered up to 45 months free tuition, cost of instruments, supplies and \$75.00 for textbooks. He may receive 24 months pay as an officer cadet and 21 months pay as a 2nd lieutenant. Following graduation he is obliged to serve for five years with the Corps in the minimum rank of captain.

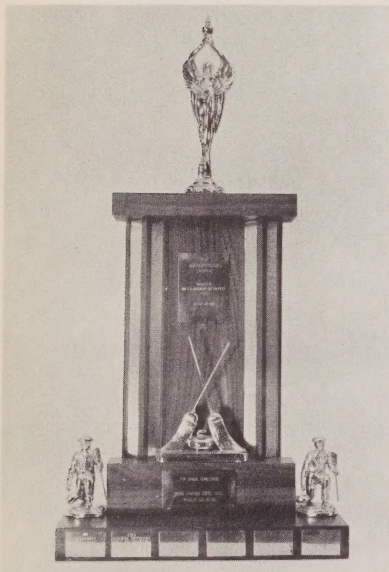
At the present time there are approximately 100 undergraduate students in all dental faculties across Canada who are being subsidized by the Department of National Defence and who will come to full time service with the Corps on graduation.

The Annual RCDC Bonspiel

This popular annual event was first held at the RCDC School, Camp Borden on 9 Mar, 1963. Brig E.M. Wansbrough, who had retired as DGDS in 1958, presented a handsome trophy for annual competition by members of the RCDC Regular and Militia.

Attendance at the first bonspiel in 1963 was 12 rinks, this increased to 24 rinks in 1964 and in 1965 approximately 25% of the Corps was represented by the 32 rinks participating. The annual bonspiel is making a wonderful contribution to our esprit de corps.

In 1964 a second trophy was donated by the officers of the Regular component of the Corps. It is now becoming apparent, with such a large number of personnel attending that a trophy will be required in the near future for the third event winners.



Winners 1963: Ssgt A.F. Davison, Ssgt T.W. Sullivan, WO1 V.O. Bergland, Capt M.N. Deyette

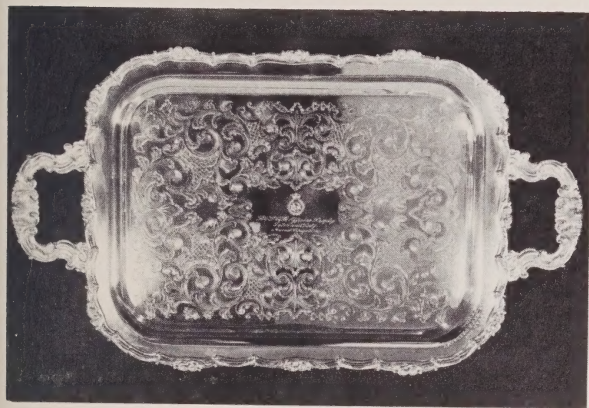
Winners 1964: Maj W.H. Carter, Maj A.G. Andrews, Maj C.J. Sivell, Maj A.T. Hinch

Winners 1965: Brig K.M. Baird, Maj A.W. Brusso, Lt Col S.G. Bagnall, Col I.A.L. Millar

The Wansbrough Trophy

The Annual RCDC Golf Tournament

The other major sporting event of the year was inaugurated in 1963. A trophy was presented by the regular officers of the Corps for an Annual RCDC Golf Tournament. The first tournament, held on 21 Sep, 1963 at Camp Borden, was attended by 47 competitors. On 25 and 26 Sep, 1964 a total of 56 players participated in the competition. Plans are being made for a tournament later this year and it is expected that there will be an even greater response.



Winners 1963: 13 Coy - Lt Col
G.E. Windsor, Capt
E. Gazo, Sgt W. Hill

Winners 1964: 1 Dent Det - Maj
W.H. Carter, Maj
A.G. Andrews, Sgt
W. Hill

RCDC(R) Golf Trophy

The RCDC Quarterly

The present issue of the Quarterly begins our sixth year of publication with the first issue being distributed in April, 1960. The aim was to provide a means of disseminating information of interest to all personnel of the Corps where no other means existed. It would permit the publication of articles and papers on professional and technical subjects of particular concern to us in the Armed Forces. Circulation has gradually risen from just over 100 copies to the present distribution of over 200 and covers civilian and military addresses in Britain and Europe as well as many parts of the United States and, of course, all over Canada.

The RCDC Flag

The Corps flag was produced first in Japan in 1953 through the efforts of Col B.P. Kearney, then CO of No 25 Field Dental Unit in Korea. The first flag raising ceremony was held in Korea on 27 Jan, 1954.

The flag is bisected diagonally from the upper left (flagstaff) corner to the lower right corner; the upper triangle emerald green, the lower triangle blue. The design of the Corps cap badge in gold, 12 inches high, is in the centre of the flag.

RCDC Flags were presented to Our Lady of Fatima Chapel and to St. John's Chapel at Griesbach Barracks, Edmonton, 21 April, 1963.



The presentation of an RCDC Flag to St. John's Chapel

Ssgt H. Hodkinson, Sgt R.H. Palmer, Major T.D. Cobb, Padre S.H. Clarke, and Padre J. Cardy

Women with the RCDC

When the manpower situation became critical during the Second World War the trade of dental assistant was one that accepted female volunteers. Before the end of the war women of the RCN, CA(AF) and RCAF were serving with the CDC at many locations in Canada and overseas.



At the present time there are airwomen serving with the Corps at RCAF stations in Canada and with No 1 Air Division in Europe. One of the dental auxiliaries has the distinction of being the first airwoman to be promoted to the rank of Warrant Officer Class 2 in the peacetime RCAF.

Civilian dental nurses and four clinical technicians are employed at various locations in Canada. Some of these women are former service members who continue to work for the RCDC.

Recreation



Golf Tournament



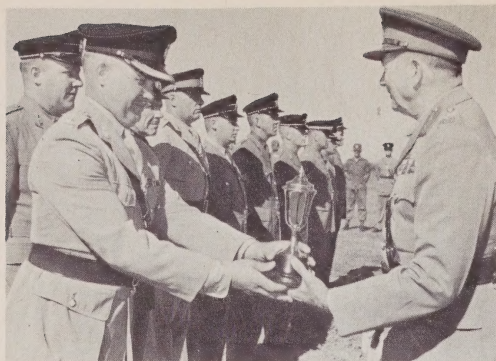
Volleyball Champions, Camp Borden 1960-61



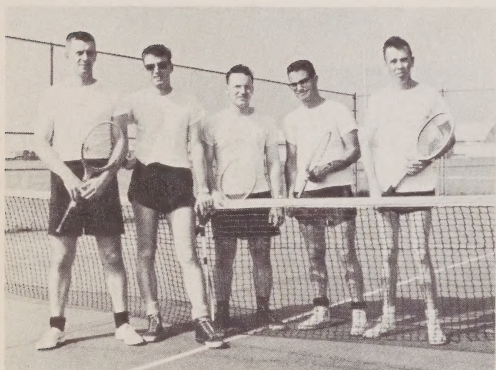
Annual Bonspiel 1965



Wansbrough Trophy Winners 1965



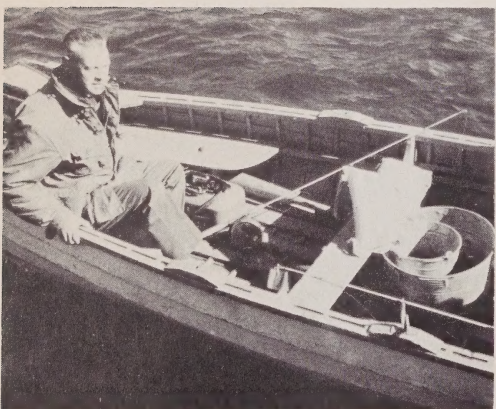
Shooting



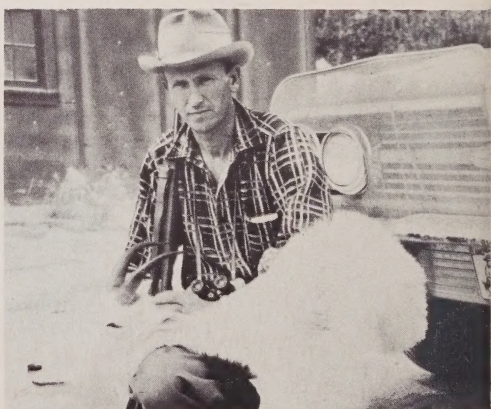
Tennis



Sightseeing



Fishing



Hunting

The RCDC March

The RCDC March was composed by Capt J.M. Gayfer, CD, MUS, DOC, LRAM, ARCM, Director of Music of the Canadian Guards Band, and published in late 1960. Earlier attempts to obtain a distinctive Corps March had met with little success until Capt Gayfer voluntarily composed and donated his excellent composition to the Corps.

QUICK MARCH

Alla Marcia
♩ = 120

"THE ROYAL CANADIAN DENTAL CORPS"

JAMES M. GAYFER

Handwritten musical score for "The RCDC March" in 4/4 time, marked "Alla Marcia" (♩ = 120). The score is written for a piano and features three systems of music. The first system is marked "CORPUS" and "TREBLE + BASS". The second system is marked "CRASH". The third system is marked "f" and "57". The score includes various musical notations such as treble and bass clefs, key signatures (one flat), time signatures, and dynamic markings (f, mf, 57). The notation is handwritten and includes some corrections and annotations.

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The

ROYAL CANADIAN DENTAL CORPS

Quarterly

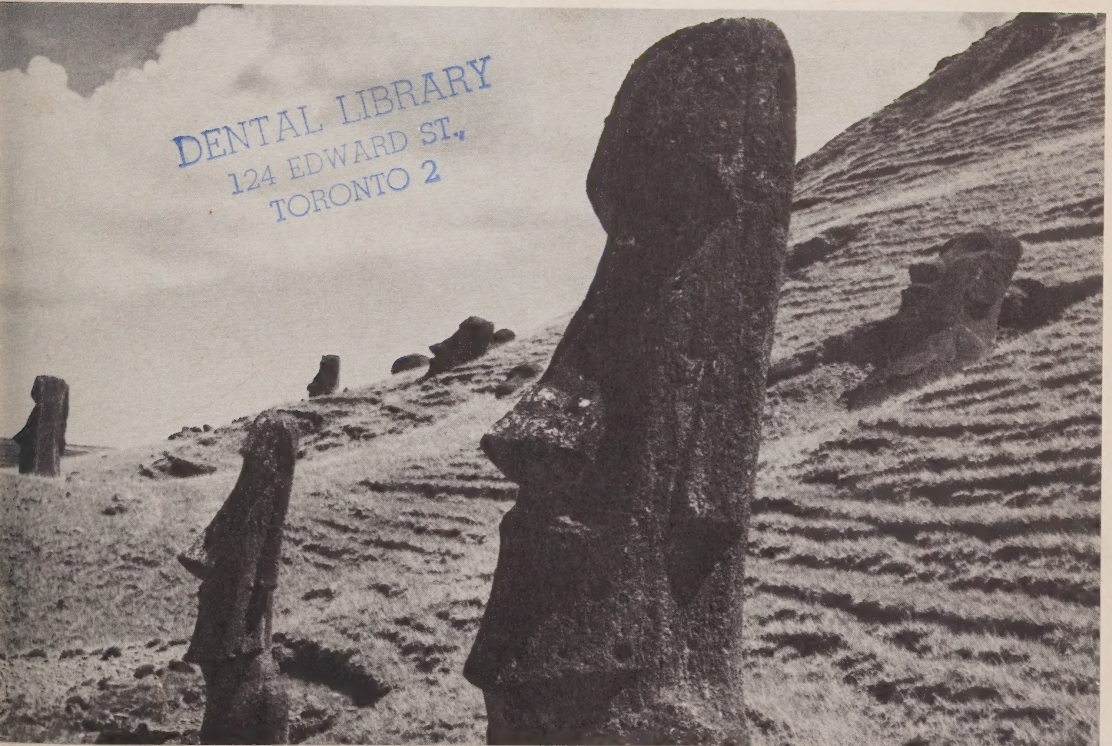


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The RCDC Quarterly

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Major WH Harrington

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OTTAWA 4, Ontario.

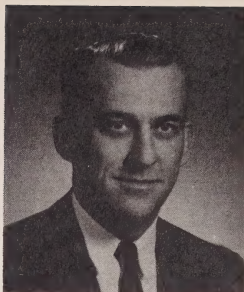


Cover Photograph

Easter Island Statues

PARTIAL DENTURE PLANNING
FULCRUM LINE AND ROTATIONAL CONTROL

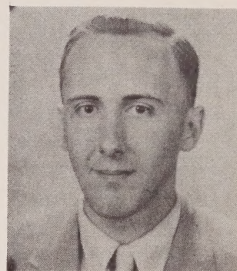
J. McCutcheon, BA, DDS, MSD, FACD, FICD,
Dean, Faculty of Dentistry, and
Professor of Prosthetics,
McGill University,
Dental Surgeon-in-Chief,
Montreal General Hospital,
Consultant in Prosthodontics,
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Dr. J. McCutcheon

Oscar Sykora, BA, MA, PHD, DDS,
Assistant Professor,
Prosthetic Dentistry,
McGill University.

Dr. O. Sykora



The practice of Prosthetic Dentistry combines the qualities of an Art and a Science, in which the teachings of the basic medical sciences, the dental sciences and the principles of engineering find their practical application as a blend with the artistic appreciation of the operator.

This paper proposes to deal with that segment of partial denture construction concerned with the planning and design of removable prosthodontic appliances and specifically to the principles related to fulcrum lines and the control of rotational movement in such appliances.

It is presumed that a searching examination and study has provided the data upon which an evaluation of the causative factors of the partially edentulous condition, the extent of progress reached by that process, the favourable and unfavourable influencing factors and so on may be determined.

Fundamental Principles

As a foundation for a discussion of the specific problem; there follows a review of the principles which must be considered in rendering a removable partial denture service.

- a. Any partial denture service should begin with the return of the oral tissues to a state of health so far as this may be possible;
- b. the major objective of any partial denture service, be it fixed or removable, intracoronal or extracoronal, should be the preservation of the remaining oral tissues; this should take precedence over the re-establishment of an ideal status of dental function;
- c. before any mouth preparation is initiated, there should be a critical evaluation of each remaining tooth so that its strategic importance in the rehabilitation of the mouth may be determined and its retention or extraction justified;

- d. partial denture design should be as simple as possible, consistent with the basic biological, mechanical and structural principles which may be involved; every component of the partial denture framework has to have its proper justification;
- e. since the physiological tissue tolerance of individuals may vary greatly, the stress load induced by the partial denture should always be directed toward the minimal in order not to exceed the tolerance of the individual's supporting structures;
- f. to ensure the most satisfactory partial denture experience, the patient must be properly prepared psychologically to receive this type of service and must be trained to co-operate most fully in the care of the mouth and the maintenance of the prosthesis; and,
- g. removable partial denture service should be such that it can be provided effectively by the largest number of dentists to the greatest number of patients consistent with the rendering of a true health service.

With these principles established, consideration will be given to the fulcrum line and the influences it has on partial denture planning.

What is a Fulcrum Line?

The fulcrum line (or line of rotation) is an imaginary line passing through the supporting areas of teeth upon which direct retainers are to be placed; and around which the partial denture prosthesis will tend to rotate when subjected to various masticatory stresses. It must be pointed out that there may be more than one fulcrum line for the same partial denture and that the lines of rotation should always pass through the centers of stabilizing areas for maximum efficiency.

Having established that the partial denture rotates around an axis or axes and presuming that clasps are functioning properly to prevent total displacement, a rotational movement will occur as the free-end base will have the tendency to lift away from the underlying tissues. Indirect retainers neutralize these forces which tend to dislodge the prosthesis, preventing unseating rotation about the fulcrum line.

What are Indirect Retainers?

They may take the form of embrasure rests or hooks, secondary occlusal rests, anterior modification areas, continuous clasps, ribbon bars or lingual plates functioning indirectly on the side of the fulcrum line opposite to the one or more free-end bases of the denture.

In their design and placement three main rules should be followed:

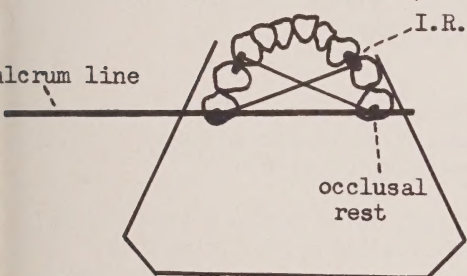
- a. indirect retainers, to function properly, must be rigid;
- b. they must be placed on a definite horizontal ledge where slippage or tooth movement will not occur and not on tooth inclines or weak abutments;
- c. the farther they are placed from the fulcrum line, the greater their efficiency.

According to Steffel, for ideal leverage and best stabilization, the following rules should be observed:

- a. Select abutments for direct retainers as far apart as feasible, both bilaterally and antero-posteriorly.
- b. Select abutments so that the fulcrum line (load line) bisects stabilizing areas; or so that the geometric figure (triangle or quadrangle), formed by several fulcrum lines, has the greatest area possible.
- c. Provide short unseating leverages, and long stabilizing and controlling ones.

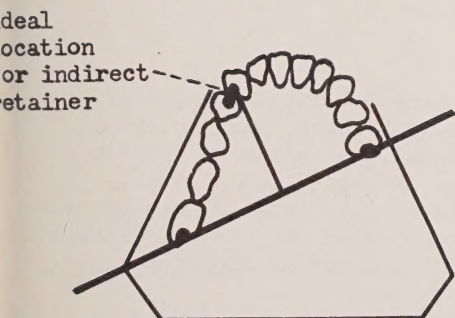
Practical Applications

Cl.1* situation (all remaining teeth are anterior to bilateral edentulous areas)



- i. fulcrum line passes through the occlusal rests of the most posterior abutment teeth on either side of the arch;
- ii. two indirect retainers are to be preferred (two free-end bases).

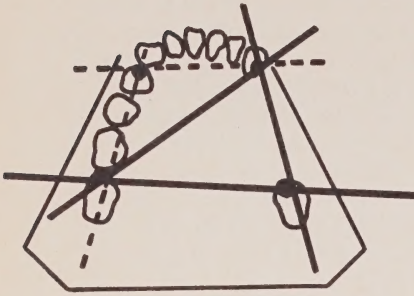
Cl.11 situation (the remaining teeth of either the right or left side are anterior to the unilateral edentulous area)



- i. fulcrum line is always diagonal, passing through the occlusal rest areas of the abutment tooth on the free-end side and the most posterior abutment on the opposite side;
- ii. one indirect retainer (opposite the free end base) is used; or, if another abutment tooth anterior to a modification space lies far enough mesially from the line or rotation, it may be used effectively for the support of an indirect retainer;

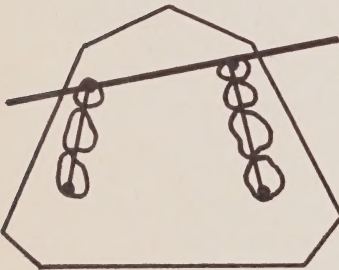
*Kennedy-Applegate Classification system, which is based on the manner of achieving appliance support; close correlation exists between appliance design and the classification of partially edentulous areas.

Cl.111 situation (the edentulous area is bounded by teeth unable to assume total support; cross arch splinting is required.)



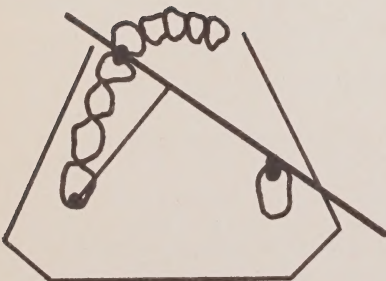
- i. a tooth borne partial denture;
- ii. a triangular or quadrangular design is indicated from the use of three or four direct retainers, with the abutments being selected as far apart as feasible to include the largest area within the triangle or quadrangle and to provide the longest controlling leverages against the lifting strains;
- iii. no need for an indirect retainer.

Cl.1IV situation (the remaining teeth bound the edentulous area posteriorly on both sides of the median line.)



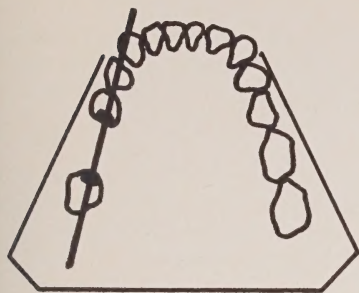
- i. the fulcrum line passes through the two anterior abutments adjacent to the single edentulous space;
- ii. two indirect retainers are needed and are used usually in the form of a secondary direct retainer on the most posterior tooth suitable as an abutment on either side of the dental arch;

Cl.V situation (the teeth bound the edentulous area anteriorly and posteriorly but the anterior boundary tooth is not suitable for abutment service.)



- i. fulcrum line is diagonal, similar to the Cl.11 situation, passing through the occlusal rest areas of the two principal abutment teeth; that is to say, between the free-end base abutment tooth on one side and the most anterior abutment tooth on the opposite side;
- ii. one indirect retainer is needed and it is usually placed on the most posterior tooth on the side opposite to the anterior free-end base;

Cl.VI situation (the boundary teeth are capable of total support of the required prosthesis)



- i. fulcrum line passes through the rest areas and in line with the partial denture; this design derives its stability against tipping from only the short leverages supplied by the arms of the two direct retainers with no cross-arch support;
- ii. no indirect retainer needed.

Anterior or posterior modification areas do not change any of the above mentioned principles and basic designs. As a general rule, a short anterior modification area should be eliminated by a fixed partial denture prosthesis; however, a posterior additional space may be of advantage (cl.11, Cl.111 cases) where there is an advantage in creating bilateral design.

One final statement may be made concerning the so-called direct-indirect retention which one may obtain in maxillary cases. Separate indirect retainers may not be needed if retention from a cast palatal plate or a cast palatal strap will provide sufficient direct retention to prevent movement of the base away from the underlying structures, despite the forces of gravity and/or other dislodging forces.

Summary

The fundamental principles which influence the rendering of a removable partial denture have been reviewed. The significance of the fulcrum line in the design of a removable partial denture has been noted. The role of indirect retainers and their relationship to fulcrum lines and resulting tendencies to rotational movement in removable partial denture prostheses has been discussed.

It is inherent in the basic responsibility of the dentist when concerned with the design of a removable partial prosthesis to give consideration to these fundamental factors that the resulting treatment plan may be consistent with primary biological, mechanical and structural principles.

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35 FIELD DENTAL UNIT,
ROYAL CANADIAN DENTAL CORPS

Lt-Col L.G. Craigie, CD, DDS

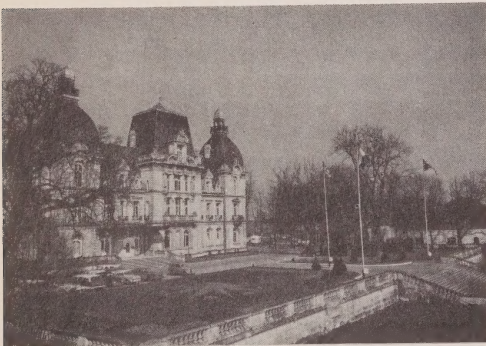


Lt-Col L.G. Craigie

BACKGROUND

Although No 1 Air Division RCAF did not function as an operational command until October 1, 1952 it did have forces overseas destined for NATO for more than a year. Major J.G. Butler, Sgt AD Brown and Sgt AC Vout, all of the RCDC, were present when the Royal Air Force Station at North Luffenham, in Rutlandshire, England's smallest county, was transferred to the RCAF and became No 1 Fighter Wing on 1 November 1951. Early the following year No 30 Air Materiel Base at Langar, near Nottingham in England was under construction to provide logistic support for Canada's projected Air Division. In the old Province of Lorraine, in Northeastern France, No 2 Fighter Wing at Grostenquin began to take form and in November 1952 Capt J.C. Brick, Sgt WB Gilbert and Pte W Baker arrived at 2(F) Wing.

A tense political situation in Europe during 1952-53 made the need to establish the operational capacity of the Air Division an urgent requirement. Air Division HQ was relocated from Paris to Metz France. No 3 Fighter Wing, Zweibrucken, Germany became operational in March 1953 and full priority to finish the construction of No 4 Fighter Wing at Baden-Soellingen, Germany was ordered.



Chateau de Mercy

By the end of the year 1953 the confines of the Air Division was as follows:

No 1 Air Div HQ	- Metz, France
No 1(F) Wing	- North Luffenham, England
No 2(F) Wing	- Grostenquin, France
No 3(F) Wing	- Zweibrucken, Germany
No 4(F) Wing	- Baden-Soellingen, Germany
No 30 AMB	- Langar, England

Through January and March 1955 No 1(F) Wing moved from North Luffenham to Marville, in the Meuse department of Northeastern France.

No 35 Field Dental Unit Formed

As the construction on the fighter bases progressed and was completed the build-up of RCAF personnel in the Division began and with the increase came the demand for dental treatment and the need for the establishment of RCDC clinics at the HQ and Fighter Wings.

Under SD1 Letter No 53/49 dated 6 May 1953 authorization was granted in Canada for the formation of 35 Field Dental Company effective 29 April 1953. Effective the same date 35 Field Dental Company came under the command of HQ Canadian Base Units, Europe and was placed under administrative control of No 1 Air Division for all purposes except discipline.

On 16 December 1953 No 35 Field Dental Coy was redesignated as No 35 Field Dental Unit. It was felt by the Director General of Dental Services that the designation of dental formations as Dental Coys was a misnomer in that "Company" tended to create an erroneous impression as to size, responsibility and command and that in the future, designation of dental formations as Unit rather than Company would be used.

Unit Accommodation

The first component of the HQ Staff for the newly formed unit arrived at Air Division HQ, Metz France on 25 June 1953. Space to accommodate the staff had been reserved in the Chateau de Mercy along with other staff personnel for the Division. Although the Chateau was a beautiful and historic building, the space allotted for the Unit was inadequate. Arrangements were made to provide for more spacious quarters which would include a dental clinic, in a proposed new administrative building. The new accommodation was completed in the fall of 1954 and the HQ personnel moved in.



L to R: Sgt W Powers, Lt Col WR Cunningham, Brig EM Wansbrough, LAW C Pilkington, Maj JC Brick

At the Wings, clinic accommodation was provided in the station hospitals, but as the Air Division grew in strength, renovations, additions and in some cases entirely new accommodation had to be made for dental personnel.

At 2(F) Wing a new clinic separate from the hospital was constructed in 1957. It had three operating

rooms, a good-sized laboratory, orderly room and waiting room. It also provided for a separate waiting room and operating room for the dependents' clinic. An addition to the clinic at 4(F) Wing to allow for a separate operating room and waiting room for dependents was completed in 1961. Alterations at the HQ clinic to provide an additional treatment room was completed in 1962.

In March 1960 approval in principle was given to build an entirely new clinic at 1(F) Wing. However, the cost of such a project became prohibitive and authorization to proceed with the construction suffered a long series of

delays. Finally approval was granted to renovate a building in a good state of repair on the station and the clinic was finished and ready for use on 7 Jan 1964. The new clinic at 1(F) Wing provides built-in sinks and working spaces in the operating rooms and one of the three operating rooms is furnished completely with new Canadian equipment. It also contains a separate waiting room and operating room for dependents.

Part-Time Clinic Accommodation

In August 1958 plans were made to establish a clinic at the Canadian Joint Staff in London, England. However, the relocation of the Canadian Joint Staff from their former address at Ennismore Gardens to their present address at 1 Grosvenor Square held up construction for so long a time that the clinic was not ready for use until 29 Sep 1961. The clinic has a modern unit and chair, x-ray and laboratory facilities.

A part-time clinic was opened at the RCAF Air Weapons Unit in Decimomannu, Sardinia, in December 1958. Deci (as it is called by Canadians) is a tri-service station composed of Italian, German and Canadian Air Force personnel and is used as a firing range for fighter aircraft of the three nations mentioned. The dental equipment is of modern design and the Italians, who administer the base, co-operate fully with the Unit in allowing the use of the clinic and the equipment on a part-time basis. Since less than one hundred RCAF personnel are attached to the Air Weapons Unit in Sardinia two or three visits a year by unit personnel satisfies the dental treatment requirements.

The clinic at 30 AMB at Langar had operated on a full time basis since the Unit was formed, but with the employment of new transport aircraft on regular transatlantic flights the functional role of the station became of less importance to the Division. Accordingly, the number of RCAF personnel there was reduced and since only a housekeeping staff was required to maintain the base the dental clinic was declared a part-time clinic on 18 Feb 1960 and was subsequently closed in 1964.

The part-time clinics at Langar and London were manned on a regular schedule by personnel of the Unit. Arrangements were made in 1962 to have dental sections from 4 Fd Dent Coy with the Brigade in Soest, Germany alternate with those of the Unit in providing dental treatment for Canadian personnel in England.

Dental Equipment

Field dental equipment was used initially by the officers and men of the Unit and was replaced with German-made Ritter units which were installed in all the clinics on the Continent. During the course of the years 1960-1964 new dry-heat acrylizers, airtors, amalgamators, model trimmers and vacuents were added to the Unit's ledgers. The clinics at 1(F) Wing and Metz have now been equipped, in part, with modern Ritter and SS White units delivered from Canada.

In 1960 a chrome cobalt casting unit was installed at the HQ laboratory in Metz.

Dental Stores

The first shipment of dental stores for the Unit arrived in Metz in January 1954. Suitable storage space was found by renovating an old military bunker that had seen service during both World Wars and which has been occupied by either the French or the Germans depending on the military situation at the time. The old bunker proved adequate if one could find the proper road and entrance into it. There was, of course, the problem of finding one's way out of this network of tunnels which at times reached three underground levels.

In the fall of 1955 suitable space was made available at Unit HQ and the dental stores were removed from the bunker. Personnel of the Unit use the same stores list that is used in Canada with the exception of a few items which are purchased locally. Dental stores were formerly shipped from Canada to the Unit by sea and there were incidents of damage and loss. Now all dental stores are shipped from Trenton, Ontario via RCAF service flights to Marville in France. The service is efficient and the handling of the stores is excellent.

Dependents Dental Care Program

The restriction on dependents accompanying service personnel to the Air Division at public expense was lifted in 1955 and with the influx of dependents came the problem of obtaining adequate dental care. Many dependents were reluctant to receive treatment from the civilian dentists in the vicinity and endeavours were made by the Air Division to establish the responsibility for dependent dental care with the Corps and 35 Field Dental Unit in particular. However, authorization to have the Unit assume this responsibility was not obtainable and the Air Division decided to create a dependent health service from their own resources.



Front: Capt Geo Truscott,
Lt-Col AC Lemay, Capt JW Harrison.
Back: Sgt BA McLeod,
Sgt A Ponton, Sgt A James,
Sgt H Hodgkinson, Cpl E
Jermain, WO2 W McMichael

Office space and dental equipment were made available and local dentists were contracted to provide the treatment. Funds to finance the program were arranged through the Non-Public Funds of the station concerned. In return for treatment rendered by the civilian dentist the serviceman paid a fee for service for his dependents to the RCAF Accounts Section. He was allowed to pay in cash or have the amount deducted from his pay.

At the beginning it was difficult to contract local dentists who were capable of providing a dental service of the professional standard expected by Canadians. Also the provision of adequate space to accommodate a dependents' clinic was often a problem. However by May 1958 the last dependents' clinic was completed and at present there are four such full-time clinics, within the confines of the Air Division.

Special mention is made of the two German civilian dentists still serving with the Division. Dr. Egon Schwab has served at 2(F) Wing and 4(F) Wing since 1955 and Dr. E.O. Calleneus has served at the HQs clinic at Metz since 1957.

Military Training

Operational training for RCDC personnel in the Division is not comparable to the training that would be received if the Unit was a part of a similar formation of the Canadian Army. Generally, in exercises and alerts, ground personnel are held in static positions and only flying personnel are deployed. However, all personnel are given a War Task Assignment on arrival and RCDC personnel are placed in positions as required by the Emergency Defence Plan of the Division.

There were, nevertheless, two instances where personnel did receive field training. In 1955 three officers and three NCOs attended a field exercise staged at HQ 1 Field Dental Company, Soest, Germany and in 1957 the HQ staff of the Unit were under canvas for a week during the NATO Exercise "Counter Punch".

Professional Training

Since 1954 an excellent professional affiliation has been established between the officers of the Unit and their counterparts in the US Army and US Air Force Dental Corps. Canadian officers are invited to attend monthly meetings and study groups held at near-by American Military installations. Many officers belong to the Western Germany Armed Forces Dental Society, a professional organization sponsored by the American Dental Corps in Europe and once a year Canadian officers attend the Annual Dental Conference held at Garmisch, Germany in the heart of the Bavarian Alps. In recent years the annual conference has grown in scope to include dental officers from other NATO forces in Europe giving the conference an international atmosphere.



L. to R. Cpl AJA MacFarlane, WO2 HC Bilby, Lt Col GR Covey, Capt GJ Moore, WO2 EM Lobb, Ssgt BA MacLeod, Sgt KJ Smallshaw

Officers from the Unit have been enrolled in the General Oral and Dental Surgery Courses at the Royal College of Dental Surgeons in London, England and at present an officer is attending a course in Orthodontics at the University of Freiburg, Republic of West Germany. All Unit officers are encouraged to enroll with the Professional Extension Courses conducted by the US Naval Dental School and little or no administrative difficulties are experienced with the courses even though the assignments are sent to an "overseas unit".

In 1964 a refresher course in chrome-cobalt procedures was organized for the Dental Technicians (Lab) of the Unit. Each technician received individual instruction and assistance in the fabrication of prosthetic cases. This short course for the technicians proved to be a very popular one indeed.

Dental Officer Subsidization Plan Officer Cadet Training



Major WH Harrington and Lt Col LG Craigie with 1963 2nd Phase DOSP Cadets at 4 Wing, Baden Soellingen

During the course of the DGDS inspection tour of the Unit in April 1963 the possibilities of conducting a part of the training program at the Air Division for Second Phase Officer Cadets was investigated. Accordingly, on 2 July 1963 eighteen officer cadets arrived at the Division for RCAF Indoctrination Training. A similar program was arranged for the following year and on 9 June 1964 fifteen officer cadets arrived for training. As part of their training a conducted tour of the Division and environs was arranged for them by the Unit.

Airwomen

Late in October 1953 authority was sought to permit the employment of airwomen as dental assistants with No 35 Field Dental Unit and by the end of the year 1954 five airwomen were serving in this capacity. From that time on the dental assistants from the RCAF (WDs) have performed their duties in an outstanding manner and brought credit to themselves and to the RCAF in particular.

Deaths

October 1955 was a sad month indeed for the personnel of No 35 Field Dental Unit and for the Corps. Major H.S. Lankin, who had only recently arrived at the Unit was found dead from a cerebral haemorrhage in his apartment in Metz. His wife and three children were on their way to join him at the time and were notified of his death while still at sea.

Major Howie Lankin was buried with full military honours in the RCAF cemetery at Choloy, France. The bearer party and the support party was composed of RCDC personnel from the Unit.

Sports

All the facilities for personnel to partake actively in sports are available in the Division. Even for skiing enthusiasts, some of the world's finest resorts can be reached with a day's drive by car.

Individuals from the Unit have distinguished themselves at hockey, tennis, bowling, golf, football and softball, but the most noteworthy team effort was in curling. In November 1961 two curling rinks from the Unit defeated two rinks from 4 Field Dental Coy at a bonspiel held at 3(F) Wing Zweibrücken, Germany. In February 1964 a curling rink, representing the Unit, participated in the Second Annual RCDC Bonspiel at Camp Borden, Ontario and placed third in the competition. Again, in February 1965, 35 Field Dental Unit attended the Third Annual RCDC Bonspiel and were runners-up in the third event.

Close-Out of 30 AMB and 2(F) Wing

The employment of Comet, Yukon and Hercules aircraft by the RCAF on regular transatlantic flights gradually lessened the requirement for 30 AMB as a logistical base. The dental clinic had been serviced by the Unit on a part-time basis since 1960 and following a definite notice from the RCAF the clinic at Langar was closed in Feb 1964.

By 1962 new supersonic CF 104s began to replace old Sabre and CF-100 Squadrons in the Division. The necessity for maintaining Grostenquin as a fighter base was no longer required and it was decided to close out the Station.

A touch of irony was associated with the closing of 2(F) Wing. Capt J.C. Brick had opened the first dental clinic at 2(F) Wing in November 1952, and almost twelve years later, and now as Lt Col Brick the Commanding Officer of the Unit, he completed the arrangements for its close-out on 31 July 1964.

Life With the Unit

A tour of duty with 35 Field Dental Unit is one in which the environment contains ideal working conditions for the personnel and all the advantages of Continental living.

The time has long since past when there were certain disadvantages associated with a posting to the Unit. Since the restriction that dependents were not authorized to travel to Europe at public expense was lifted, married quarters in restricted numbers have been built and schools, staffed by Canadian teachers, are available to all dependent personnel. Housing accommodation on the local economy has improved in standard and availability. Actually, the amenities are much the same as on any military installation in Canada. Each Wing has its own station store (PX), theatre, bank, messes, churches, and recreational facilities. In addition, personnel receive foreign allowance pay and enjoy tax-free privileges on automobiles, gasoline and many other articles.

Intermingled with the Canadian way of life is the European way. Destinations on leave for personnel of the Unit has shown such countries as Ireland, England, Spain, Portugal, Italy, Greece and the Scandinavian countries to mention only a few. The opportunities to explore the cultures of the

European peoples and their cities and to share their picturesque countryside are memorable occasions, indeed, for the personnel of No 35 Field Dental Unit and their dependents.

Personnel

The following is a list of the commanding officers, officers, men and airwomen who have served or are serving with No 35 Field Dental Unit. The year in which personnel commenced their tour of duty with the Unit is as indicated:



Place de la Gare, Metz, France

Commanding Officers

Lt-Col WR Cunningham	1953-1955
Lt-Col AC Leman	1955-1958
Lt-Col GR Covey	1958-1961
Lt-Col LG Craigie	1961-1964
Lt-Col JC Brick	1964

Officers and Men

1953 - Majors JC Brick, RA Fell, Capts JCE McDonald, JF Mullins, WO2 W Powers, Ssgts AG Ponton, HJ Stokes, Sgts WB Gilbert, RG Hopkins, CC Jewson, CD Mann, Cpls FB Edmonds, JRE Lalonde, and Pte WR Baker.

1954 - Major RB Jackson, Capts EF Shaunessy, GN Truscott, Sgt KE Laurence, and Cpl AL Strub.

1955 - Majors RJK Pyne, ED Fraser, HS Lankin (Deceased), Capt JWR Harrison, WO2 W McMichael, Ssgt H Hodgkinson, Sgts MA James, JV Minelli, and AT Nicholson.

1956 - Major WR Thompson, Capts RJ Bryant, JH Duggan, HG Jorgenson, CR Pugh, Ssgt B McLeod, Sgts RJ Goodwin, FM Kennedy, and Cpl EA Jermain.

1957 - Majors PL Falkner, AG Taylor, Sgts JA Gravelle, C Johnston, and KJ Smallshaw.

1958 - Major GE Windsor, Capts HG Bunston, AL Kelland, IAC MacDonald, JT Marshall, GJ Moore, WO2 EM Lobb, Ssgt HC Bilbey, Sgt FG Grundy, and Cpl AJA MacFarlane.

1959 - Major EMC Franklin, Ssgt L Lawson and Sgt KS Rothwell.

1960 - Majors WH Harrington, CJ Sivell, Capts JG Boucher, DH Evans, AT Hinch, WO1 CH Loken, WO2 AG Cross, Sgts A Fox, JM Roberts, H Marckwort, and Cpl WJ Parker.

1961 - Major FD Charman, Capts HK Meisner, JYJ Turcotte, and Sgt JF Marchand.

1962 - Major IW Susser, Ssgt JR Savoie, and Sgt BD Wood.

1963 - Majors JL Craig, DE McDermott, Capts JOL Bourget, JM Marion, A VanRyssel, Lt M Kostyniuk, Ssgt WH Shaw, Sgts GR Jennings, and EE McFadden.

1964 - Majors WK Dickie, BA Gaudet, Sgt HM McCurdie and Cpl GM Wadden.

1965 - Capt Y Kamachi.

Airwomen

1954 - Sgts CM Dickie, FJ Haugen, Cpls CA Miller nee Pilkington, SA Morden, KP Palmer, VRG Senior nee Just and AWL SL Coles.

1955 - Sgts MFE Armstrong, MP Foley, Cpls HE Hagerman and S McMichael.

1956 - Sgt TY Dundas nee Partridge, Cpl MI Redbourne nee Ecklin, LAWs CM Caws nee Lum, and VG Doddridge.

1957 - Cpls JA Brennan nee Skarra, CE Lamb nee Porter and KP Palmer.

1958 - Cpls TF Campbell, MRF Jensen nee Clark, E Morken and LAW H Linkovich.

1959 - Cpls MM Potolicki nee McMillan, and JA Rathe nee Lalonde.

1960 - Cpls DAM Fisher, and GAMJ Ridley nee Joncas.

1961 - Cpls D Ellis nee Wierelejchyk, DJ Hollins nee MacNeil, and LAW JA Keryluk nee Bowes.

1962 - Cpls MCN Jaeger, KP Palmer, SAM Ruzychi nee Bigelow, LAWs MR Matlock nee Thibault, DJM Gagnon nee McNichol and DA Titus nee Turner.

1963 - FS CMB Torrens, LAWs SJ McMillan and JM Patterson nee Roberts.

1964 - LAWs M Kant, and PJJ Lockyer.

1965 - LAW FB Schmaltz.

NOTE: An endeavour has been made to list the names of all the personnel who have served with No 35 Field Dental Unit since 1953. The writer sincerely apologizes if any names have been omitted even though no intent to do so was ever contemplated.

MEDICAL EXPEDITION TO EASTER ISLAND

Major A.G. Taylor, CD, DDS

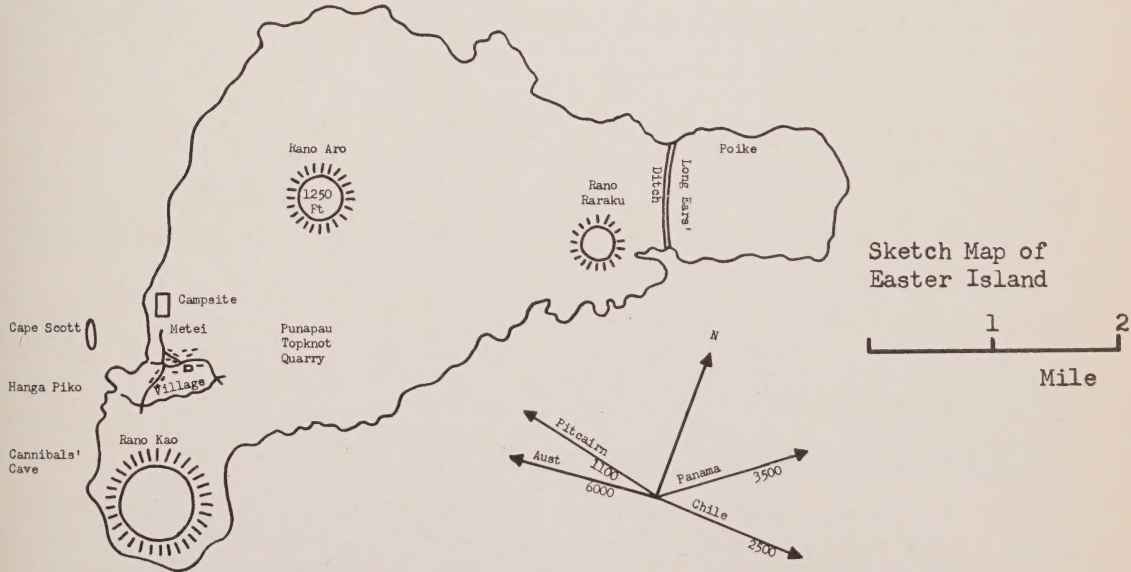


Major A.G. Taylor

GEOGRAPHY

Easter Island, an isolated speck in the southern Pacific Ocean, lies 2,230 miles from the South American coast and 1,100 miles from its nearest inhabited neighbor, Pitcairn Island. A typical volcanic island, roughly triangular in shape, it has a total area of 55 square miles. The climate is subtropical with an almost constant cooling breeze. Rain fall, which is greatest in winter months, averages 50 inches a year and is the main source of drinking water.

The gently sloping hills rise to a height of 1,250 feet and are largely grass covered with a heavy sprinkling of volcanic rocks. There are a half dozen varieties of trees, concentrated mainly in and around the one village, Hangaroa, the vast majority of which are Eucalyptus. Sea birds are the only native fauna. Lizards, rats and chickens accompanied the Polynesian settlers. A type of game bird, very similar to the Hungarian Partridge, can be seen in small flocks. Sheep, pigs and cattle were introduced by Europeans.



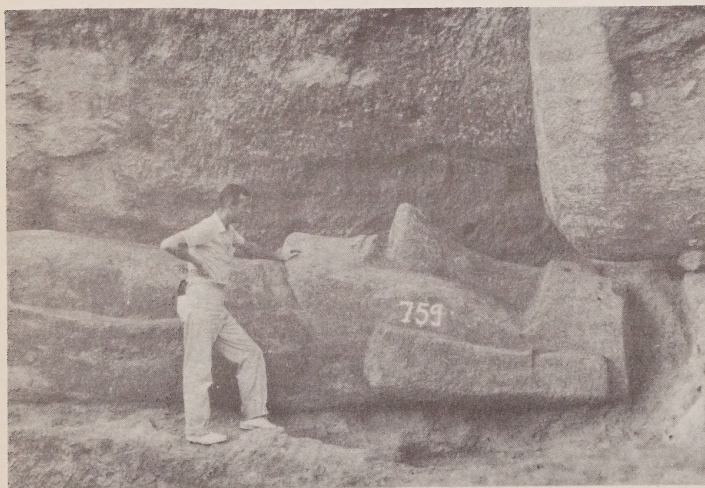
HISTORICAL BACKGROUND

The Norwegian Archaeological Expedition, led by Thor Heyerdahl, from November 1955 to April 1956, made discoveries which threw new light into the dim past of the Island's prehistoric age. It was concluded from the results of radio-carbon dating performed on samples taken from beneath the Island's surface that there were primitive inhabitants there during the 4th century. Earth borings containing pollen showed that the Island was once covered with a forest of palms and coniferous trees. Analysis of soot and ashes bore evidence of a forest fire which destroyed the vegetation and led to the present barren condition.

The historical age of Easter Island began with the Polynesian immigration conducted by King Hotu Matua. According to folklore, Hotu Matua came from another island to the northwest, possibly the Marquesas Group, sometime during the 14th century. It was during this period that wood carving began; the figures that are carved today are based on the original ancient forms.

Easter Island's "Golden Age", a period of astonishing megalithic artistic activity, commenced with the arrival of the "Long Ears". The land they came from remains a mystery; some suggest Peru since the Inca noblemen also had the custom of distending the lobe of the ear with weights so that it hung down to the shoulder. The monumental burial places called ahus, erected by the Long Ears, show resemblance to ancient Peruvian constructions.

As the Short Ears adopted the custom of burying the dead in constructed burial places, many ahus, about 250, were built around the Island, most of them near the coast. Father Sebastian Englert, who has spent many years studying the archaeology of Easter Island, believes that the Long Ears constructed the ahus and the Short Ears carved and raised the gigantic stone images which adorn them. In an old legend are mentioned the stone images brought with the Polynesian immigrants.



Well preserved statue in final stage of carving at the quarry of Rano Raraku

Father Sebastian reasons, "We can imagine that the idea of adorning burial places with stone images was enthusiastically accepted by the great majority of the inhabitants of both races. This is the only explanation for

such a great artistic activity in the quarries of Rano Raraku where there is relatively soft rock composed of lava, sand and stones. More than 600 statues were made, 80 of which were not completely finished and can be seen in different phases of the making; over 60 of the others represent a most perfect workmanship. More than half of the statues were transported to burial places, most of them a great distance from Rano Raraku, and were placed on the platforms of the ahus. This transportation of heavy statues had to be made with the aid of primitive means, ropes made of plant fibres and wooden rollers. The statues had to be lifted up to the platforms; very difficult work and only possible as long as an enthusiastic combined collaboration between the two races lasted.

In the quarry of red pumice at Punapau, near the village, huge topnots were made and transported to distant ahus, to be lifted up and placed on the heads of the statues; this was another difficult work, made possible by combined effort.

The results of these efforts are amazingly great. Nowhere else on earth have so many monuments of sculpture and masonry been made, in such a small place, by a population of hardly more than 3,000 stone age inhabitants who were working freely, not live slaves and had no other remuneration than the satisfaction of honouring their ancestors and embellishing their island".

This great productive industry and harmony between the two races continued for perhaps 100 years or more until the Long Ears tried to dominate the Island. Rivalry and hostilities resulted which finally ended in racial war. The Long Ears withdrew to Poike Peninsula where they prepared a two mile long ditch cutting the Peninsula off from the rest of the Island. The ditch was filled with wood, to be set afire if attacked; they hoped to burn their enemy. The Short Ears gained access to the peninsula and attacked from the front and the rear driving the Long Ears into the flames of their own ditch eliminating all but three survivors. Samples of ashes and charcoal from Poike Ditch submitted to radio-carbon dating showed the time of the event to be about 1780. A short period of peace was followed by tribal wars during which the victors destroyed their enemies' burial places, pulling down the stone statues from their ahus and eating the flesh of the defeated. This period was one of advancing decadence when the inhabitants were submitted to cruelties by members of visiting ships. Between 1859 and 1862 Peruvian slave raiders carried off an estimated 900 natives. About 100 were sent back to the Island but only 15 arrived alive. These few survivors brought smallpox with them which soon reduced the population to 650. In 1870 most of the natives were taken to Tahiti.

Since 1888, when Easter Island, was annexed by Chile, the population has been increasing until the last census, taken in 1965, numbered 949 natives. Today the Island is administered by the Chilean Navy with a Naval Officer appointed as Governor.

FORMATION OF THE EXPEDITION

The Medical Expedition to Easter Island was organized with the aid of an initial grant from the World Health Organization, which is interested in the development of methods for medical field studies. Grants were also received from the Medical Research Council of Canada and the McConnell Foundation of

Montreal. Major pieces of laboratory equipment were obtained on free loan from Canadian and American manufacturers. The Department of National Defence provided the RCN's repair ship H.M.C.S. Cape Scott for transportation of the expedition and construction of the biological station.

Quoting Dr. Stanley Skoryna, Director of the Expedition, "The active participation is a landmark in the direct cooperation of the Armed Forces with medical research for the improvement of health standards of people throughout the world. In addition to the accumulation of significant medical data, the expedition provided valuable information for similar undertakings both in Canada and elsewhere".

OBJECTIVES OF THE EXPEDITION

To carry out an integrated medical survey of the total native population of Easter Island, in order to identify and evaluate the relative role of environmental and hereditary factors in an isolated population. This included investigation of ecological, sociological, anthropological, genetical, microbiological and epidemiological factors.

To study and develop methods of sampling procedures, collection and transport of blood and other biological material.

To assist the population with medical problems with which they are now faced and to which they will be exposed after permanent contact with the mainland has been established.

To establish a biological station for purposes of assistance in the health and welfare of the population and to provide facilities for follow-up study after isolation of the Island has been abolished.

This program was carried out by a team of 38 members of the expedition representing a wide variety of health specialties. Members came from seven different countries: Canada, United States, England, Switzerland, Norway, Sweden and Chile.

ENROUTE TO EASTER ISLAND

With the sound of band music in the background, played by the Stadacona Naval Band, H.M.C.S. Cape Scott steamed out of Halifax Harbour on the morning of 16 Nov 1964. For the first day at sea the sailing was fairly smooth but the next morning brought heavy seas and 70 mph winds. Most members suffered from "mal de mer" and remained in their cabins for the greater part of five days until we reached Bermuda.

Following an overnight stop in Bermuda, the sea had calmed sufficiently to make the three day trip to San Juan P.R. a relatively pleasant journey. Three very busy days were spent in this port; purchasing additional supplies, doing Christmas shopping and receiving expedition equipment which had been forwarded from points in Canada and United States. With the joining of four new members, the ship sailed for the Panama Canal.

The regular routine while enroute was to attend conferences in the mornings and Spanish lessons in the afternoons. During the meetings each member presented his individual project plan and attempts were made to

co-ordinate the isolated projects into the overall expedition plan.

The traversing of the Panama Canal provided a welcome change of scenery. Members were impressed with the very efficient manner in which ships were guided smoothly through the canal. Uniformed workers of the Panama Canal Company handled locks and lines with precision. Balboa would be our last opportunity to complete the supply lists; some important items were still missing and would be airlifted to this port. After a two day stop and the welcoming aboard of the four last members, we headed out into the Pacific.

For the ten day journey from Balboa to Easter Island it was very smooth sailing with a calm sea and sunny weather all the way. Our day time hours continued to be filled with conferences and language lessons. At this point the naval officers were holding conferences as well. The landing of expedition equipment and the setting up of the camp were naval responsibilities and had to be planned in detail. The resultant operation order outlined every facet of the six day exercise. On "Day Six", according to the plan, expedition members would move ashore and commence to live and work in our self-sufficient camp.

ARRIVAL AT THE ISLAND

Easter Island was first sighted, a dark shape on the horizon, at 0300 hrs Sunday, December 13, and at 0700 Cape Scott anchored a half mile off shore at Cook Bay. Contrary to our advanced information, the Island was not a "barren rock" as quite a number of trees were in view. Most members, at this point, thought it to be quite a picturesque little island. Our impression of a "primitive people" was altered when the first boats came out to greet us. Some boats had outboard motors, the natives were surprisingly well dressed in western clothing and one native was seen taking pictures of us as we were photographing them.



Islanders came out to meet the ship in small boats

In a very short time two dozen native boats were alongside to barter their traditional wood carvings for soap, cigarettes and clothing. They were very short of supplies as it was thirteen months since the last visiting ship had departed. The Islanders proved to be very shrewd barterers but at the same time they always returned a gift. On one occasion when a water jug was

lowered over the side to offer a cool drink, it was returned containing a wood carving. The trading continued until well after dark when sailors used flashlights to see the trading goods. One sailor offered an electric shaver for some carvings; a native voice from below was heard to inquire, "110 or 220?"

At our first encounter with the natives we were relieved to find them friendly and cooperative. Quite a mixture of racial features and coloring was evident; some typically Polynesian, some blonde with blue eyes, some red heads, others with slightly negroid features and a few quite oriental. They appeared to be a very proud intelligent people who spoke Spanish freely and a small amount of simple English. Gaining their cooperation and being able to communicate with them would greatly simplify our task.

One hour after anchoring, the official party came on board. The party included: The Governor of Easter Island, the Chilean Navy Doctor and the Commander of the Chilean Airforce contingent. Following a brief conference, the party, accompanied by expedition leaders, went ashore to choose a campsite. All efforts were immediately concentrated on moving cargo ashore and commencing the building of the camp.

GETTING ORGANIZED ON THE ISLAND

A campsite was selected near the village of Hangaroa and a beachhead was established at Hanga Piko. The Governor provided two tractors and native labour to transport the cargo from beach to campsite, a distance of two miles. By 1400 hrs on the first day the landing craft was loaded with expedition equipment and on its way to the beachhead. At the campsite the construction crew staked out the ground for positioning of trailers and services. By the end of "Day One" a good start had been made.

Work proceeded according to plan when upon the completion of "Day Three" 78% of the cargo had been landed, nine trailers were erected and the mechanical still had been set up. Everyone worked enthusiastically for twelve hours a day to meet the challenge of this unique and interesting situation and to keep up to the schedule laid down in the operation plan. Cape Scott officers and crew, expedition members and natives all worked well together.

My diary records the situation as it was on 17 December: "We are just finishing "Day Five" and a tremendous amount of work has been accomplished in the last five days. The expedition site will be completed by late "Day Six" including: the setting up of twenty-four trailers, three generators, water distillation unit, pump and the usual facilities. The Ship's Company have been doing all the technical work with assistance from the METEI group to handle some of the labour. The natives have been very willing workers both on the beach handling supplies and at the campsite doing construction work. In return for their efforts the native people received food and small gifts.

At the moment there are many sore muscles and badly scraped hands from doing this rough work but, after being physically inactive for so long on the ship, the work is quite enjoyable. Everyone is pitching in willingly to get the job done and returns to the ship in the evenings at dusk, very much ready for bed. Some of the travelling from beach to campsite is done on horseback which adds for a few more sore muscles in the usual spots".

There was a fair amount of horseback riding during our stay on the

Island and some members became accomplished riders. There were about three horses per family so mounts were always easily obtained and could be rented by the day for a cake of soap or a pack of cigarettes. Personally I found it a better arrangement to have a horse for the entire two month period and was fortunate indeed to have one provided as a gift by an early acquaintance. An agreement was made with a native boy who cared for the horse, bringing it from the pasture every morning at 0800 hrs and returning it each evening at dusk for feeding. These animals were generally ill-kept and undersized but made good mounts for novice riders as they were quite docile and answered well to gentle neck reining. The saddles were makeshift and very rough which accounted for some of the above mentioned sore spots.



Easter Island
"Transportation"

On "Day Six", the day we were to make our one way trip ashore, I was up a 0445 hrs to look after last minute details onboard. We loaded our baggage into the landing craft and headed for shore. My thoughts at that moment, again referring to the diary, were: "As we prepare to land on the beach, my general impressions are: The camp is well set up due to a magnificent job done by the Ship's Company, the natives are very friendly and cooperative, the expedition will be successful and the whole experience should be an interesting one".

THE MEDICAL PROJECT BEGINS

On Monday, 21 December, Cape Scott weighed anchor and sailed east to commence a goodwill tour of Chile and Peru. As the ship disappeared from view I am sure many of the expedition were thinking, "What a welcome sight it will make upon its reappearance two months hence". There was a great deal of work to be accomplished in the meantime.

The camp was located as shown in the sketch map. Twenty-four pre-fabricated trailers were used as living quarters and working spaces. These trailers, provided by Alberta Trailer Company, consisted of a fiberglass roof with aluminum covered walls lined on the inside with mahogany siding. The well insulated structure had a linoleum covered floor and screen doors and windows. Each unit measuring 20'x10'x8', was mounted on iron skids and accommodated four members. The layout was designed to keep the working section of the camp separated from the quarters. With the placement of a gate between the two sections, some privacy was maintained in the living area.

The camp was self-sufficient, we had all of the required supplies, power and water. Now we had to unpack and set up equipment, build shelves and workbenches into the laboratories and get settled into a camp routine. We decided to carry out these tasks during the Christmas season and to be prepared to receive the first group of subjects for examination at 0800 hrs Monday, 28 December.

The two epidemiologists were busy at this time preparing a census, locating and numbering all houses, and making appointments for families to come for examination. Records and maps were available at the Governor's office which greatly assisted in the location, identification and scheduling of the native population.

There were 949 subjects each of whom were an identification card which showed: his number, name, age and stations to be checked off as he progressed through the examination. Each subject first reported to the reception office where he was registered. After a detailed history was taken he was submitted to the following examinations: dental, anthropological, medical, radiographic and laboratory. Upon the completion of these examinations, photographs were taken and each subject was given a gift of clothing. In addition to the routine examinations, an electrocardiogram was done on all subjects over forty. When abnormal conditions were found follow-ups were done and treatment administered where indicated.

The dental study which was carried out on adult subjects of 18 years and older, included the following: charting, impressions, skull and intraoral x-rays, facial photographs and saliva samples. Data were transferred from charts and radiographs to IBM cards which were sent to the New York State Health Department where the Dental Research Division had agreed to process and analyse the material.

CHRISTMAS ON EASTER ISLAND

Christmas was observed by having a special dinner served in the camp. All members attended the service in the Catholic Church conducted by Father Sebastian Englert which included Polynesian Carols beautifully sung by the native congregation. A Christmas tree, brought by Cape Scott, was placed in front of the camp and decorated. Unfortunately it soon withered in the hot sunshine.

EARLY MINOR PROBLEMS

During the first two days of examinations a few minor problems arose which caused delays in the system; too many subjects at one station and not enough at another, unappointed natives loitering in the reception area and subjects were becoming separated from their sample trays. These problems were solved at a conference and thereafter an average of thirty subjects a day were appointed which was found to be the maximum number that could be handled efficiently. For the dental and anthropological sections, who were examining adults only, this meant about twelve subjects a day.

Soon after our arrival we learned that the Chilean Navy had decided to recall the physician and the dentist, both naval officers, to Chile. Responsibility for the health of the Islanders fell to the expedition. A roster was set up so that one of the members was on call for hospital duty at all times

At first I thought that the amount of time spent on emergency work would seriously hinder progress with my expedition project. It was found that one hour a day, after the completion of expedition work, would handle the demands for emergency treatment.

NATIVES LOVED MUSIC, DANCING AND SINGING

The Islanders were very talented with musical instruments; they learned our western tunes very quickly and played them well. The accordion was most popular and many played guitars and harmonicas. All were in short supply as there were always more players than instruments. At any gathering where music was played there seemed to be only one accordion which was passed from one player to another as the evening progressed.

The "Sau Sau", which was the native dance, was somewhat Hawaiian in nature as the dance told a story expressed with the hands and the performers wore grass skirts. The dancers were accompanied by guitars, singing and hand clapping. Many "Sau Saus" were held at the camp.

To celebrate a special occasion an earth oven feast was served following the dance. At 1000 hrs on the day of the celebration an oven was prepared by digging a large hole in the ground, lining it with rocks and then lighting a fire in the hole. When the rocks were well heated, a layer of banana leaves was put in, then a layer of meat followed by more banana leaves. When the hole was filled with the alternating layers, a final layer of leaves was added and covered with earth. The meat: beef, mutton and pork was allowed to cook for ten hours. Upon the completion of the dancing performance the steaming well cooked meat was exposed and served to the gathering who sat waiting around a large circle of banana leaves on the ground. These were always very joyous occasions.

COMMUNICATION

Since the mail system on Easter Island depended on passing ships and there was only one ship a year actually scheduled, other means of communicating with Canada had to be arranged by the expedition. The CBC provided a radio operator with equipment and schedules were prepared for contacting homes and offices. "Ham" operators at various points in Canada, United States and Europe made connections whereby families were able to use their home telephones to hold regular conversations with members on the Island. Through this system I was able to converse with my family every Thursday morning at 0900 hrs Halifax time, in some instances, from the ship while at sea. One Saturday morning, half way through the expedition, the Commanding Officer of No. 12 Dental Company, Colonel R.H.G. Cunningham received a progress report via ham radio. One of our most faithful "hams", who spent many hours at his set listening for the Easter Island call signal, was a Montreal dentist.

VISITS TO THE STATUE QUARRY

Rano Raraku volcano, located nine miles from the camp, was the object of several day long visits. It was here in the quarry that the Island's 600 gigantic stone statues were carved and where 80 statues, in all stages of the making, could be examined. The huge carvings were found to vary in size from 15 to 60 feet long and weighed an estimated 5 to 30 tons. Some, protected by the over-hanging rock as they lay in the quarry, were well preserved. Others, standing in the open, showed signs of weather erosion.

I picked up a stone carving tool, where it had been dropped 200 years ago when tribal war caused the cessation of work in the quarry, and tested it on the rock beside one of the carvings. The relatively soft rock, composed of lava, sand and stones, was found to have a hard, dry outer-layer beneath which it was soft and moist. Although carving the great statues must have been a tremendous task, the stone tool handled well and the quarry rock carved more easily than I had supposed.

As I stood among the statues high in the quarry and surveyed the coastline where distant ahus were located, my thoughts were of earlier times when this now quiet scene was one of great activity. Mrs. Katherine Routledge, in her book "The Mystery of Easter Island", described the feeling beautifully when she wrote, "In many places it is possible in the light of great monuments to reconstruct the past. In Easter Island the past is the present, it is impossible to escape from it; the inhabitants of today are less real than the men who have gone; the shadows of the departed builders still possess the land".

WORK PROGRESSED AT THE CAMP

As the weeks went by work continued to progress well, subjects were coming in just as fast as we were able to handle them. It was anticipated that during the final week there would be a problem getting the last few subjects to come in so as to bring the survey to completion. The expedition Director was determined that we would examine 100% of the native population.

THE EXPEDITION RETURNED TO CAPE SCOTT

Having been appointed by the Director to plan and oversee the movement of expedition cargo to the ship, my own project was terminated two weeks before the return of Cape Scott. This assignment involved: making a detailed plan of the operation, assigning of duties to camp members, the packing of equipment and samples and arranging for transport to the loading site at Hanga Piko. The most important part of the movement was the transporting of two freezers and three frigidaires containing samples. Since there were no



R. Major A.G. Taylor
L. Dr. John Cutler of
Berkley California

mechanical devices for lifting these heavy containers, they had to be man-handled onto the trailers. A small gas operated generator was used to keep the freezers powered during movement on the trailers and in the landing craft. Since the contents of the coolers were fragile as well as subject to spoilage, these containers had to be moved carefully but quickly to the ship anchored a mile off shore.

All non-priority equipment was moved and stored at the jetty the day before the ship arrived. The ship anchored off Cook Bay at 0900 hrs on February 10. When the crew was ready to receive our cargo, the priority material: samples, records and personal baggage, was sent to the jetty. The whole loading operation went smoothly and was successfully completed in one day.

DEPARTURE FROM EASTER ISLAND

The Cape Scott remained alongside for three days, during which the Ship's Company had another opportunity to see something of the Island and all members attended farewell functions. The ship gave a party ashore for the entire population and the Islanders gave a feast and dance for members of the Ship's Company. The last farewell scene at Hanga Piko was a rather sad one with a large group of natives there to wave goodbye. The Island population became attached to the expedition group, which is understandable, since it was not often that visitors remained for such an extended period on their isolated Island.

STOP AT GALAPAGOS ISLANDS

Enroute to Panama, we stopped for a day at the Galapagos Islands. A visit was made to the Charles Darwin Biological Station which was established by UNESCO on Santa Cruz Island. Here we had an opportunity to see and photograph the Iguana and the giant tortoise. Following a short tour of the area, we met at the hotel for a very enjoyable lunch before returning to the ship. Since there was no dentist on the Island I was not greatly surprised, upon my return, to find three Islanders waiting for treatment at the ship's dental clinic.

SYMPOSIUM AT BOGOTA

Following a three day stop at Balboa and a hectic round of cocktail parties, the ship sailed through the Panama Canal to Cartagena. The Columbian Government invited expedition members to fly to the capital city, Bogota, to attend a symposium with 25 Columbian scientists from three Universities. The Columbian Airforce provided transportation to the Captial located 450 miles inland. The symposium, held at the "Universidad Nacional", was a successful and interesting experience.

RETURN TO HOME PORT

On 7 Mar 65, Cape Scott sailed on the last leg of our 10,000 mile journey. There was a great deal of work to do during the ten days sailing to Halifax. All members contributed to a 73 page preliminary report, 300 copies of which were assembled and bound for presentation upon our arrival at Halifax. We sailed into Halifax Harbour on schedule, March 17, to be greeted by a large official party and a group of 21 newsmen. Expedition members attended a news conference and an official reception before making individual farewells as we went our separate ways.

The RCDC News

Directorate

Duty Trips and Visits

Brigadier KM Baird, accompanied by Col BP Kearney, officiated at the opening of new dental accommodation at HMCS Naden Esquimalt, BC and HQ BC Area, Vancouver during the period 12-15 April. The Director visited Quebec City 25-29 May to participate in the annual meeting of the Board of Governors of the Canadian Dental Association.

Colonel IAL Millar, Deputy Director General of Dental Services, represented the DGDS in Camp Borden 1-3 Feb at a conference related to the integration of training for the Armed Forces. Col Millar was the conducting officer for the 2nd phase DOSP cadets during their RCAF indoctrination tour of No 1 Air Division, Europe 10-25 June. Following this he represented Brig KM Baird at the 53rd Annual Meeting of the Federation Dentaire Internationale in Vienna, Austria 26 Jun-2 Jul at which time he presented a paper, "Formation of Military Dental Health Teams".

Colonel Leman Retires

Colonel AC Leman, Senior Consultant for the Corps for the past two years, commenced retirement leave 28 Jun. Col Leman joined the Corps in early 1940. Following overseas service he returned to private practice in Toronto, Aug 1945. He again enlisted in Aug 1947 and served in the following senior appointments: CO of 35 Fd Dent Unit, CDO, Central Command and CO of 13 Dent Coy and finally as Senior Consultant. He and his family will be residing in London, Ont. An informal gathering of RCDC officers in the Ottawa area was held mid-July at the Army Mess to bid farewell to Col Leman at which time a presentation was made by Brigadier KM Baird.

Directorate Officers Promoted

Lt Col GC Evans has been promoted to the rank of Colonel and appointed Command Dental Officer Western Command replacing Col BP Kearney who is now employed at the Directorate. Major AW Brusso, Senior Procurement Officer, has been promoted to the rank of Lt Colonel.

11 Dent Coy

Anniversary Celebrations

The 50th Anniversary of the Corps was celebrated 30 Apr-2 May in Edmonton. The events included a mixed formal dinner at the Western Command Officers' Mess with 73 in attendance, an all ranks mess dinner at the Griesbach Sergeants' Mess for 42 RCDC regular force personnel and church parades on the Sunday morning.

Sports Events

No 11 Coy was represented in the Western Command Curling Championships held in Winnipeg 15-19 Mar 65. This competition included two teams from Manitoba, Saskatchewan, Alberta and British Columbia Areas. The Championship was won by a BC Rink with Sgt Christiansen playing third. The Alberta team of which Col Kearney was a member finished in third place.

Sgt Marckwort competed with distinction in the Command Ski Meet at Banff and the Army Championships at Valcartier.

12 Dent Coy



Anniversary Celebrations



RCDC shields were presented by Col RHG Cunningham to the Protestant Chapel in Halifax 25 Apr, and to the Roman Catholic Chapel 2 May.

L. to R. Col RHG Cunningham, Capt E Gremona and Major PE Berube at the RC Chapel

Sports

Capt JH Quackenbush skipped his team to the senior curling championship of Nova Scotia.

Majors TD Cobb, RH Headley, Capt BG Johnston and WO 2 DD Robertson won out over 32 teams for the Maritime Movers Curling Trophy 20-21 Feb 65 and were runners up in the Eastern Command Bonspiel which was held on 12-14 Mar 65.

HMCS Cornwallis hospital hockey team coached by Sgt RF Matheson and on which Capts Archambault and JEG Brissette and Cpl JAL Boulianne were playing, was eliminated in the semi-finals of the inter-part tournament.

Cpl CM Martell won the high triple with a score of 828 in the Eastern Command Bowling tournament at Camp Gagetown 21-25 Feb 65.

Capt JF Mullins, Sgts LG Flesher, EA Jermain, JG Kay and Cpls DJ Davies and CM Martell won the Halifax Garrison Bowling League championship 20 Apr 65. Sgt Jermain also had the high single.

Major and Mrs RE Dyer, Col and Mrs RHG Cunningham and Major and Mrs HJ Cashin won the officers mixed Halifax Garrison Bowling League championship.

13 Dent Coy

Dental Society Meeting

The April meeting of the Bay of Quinte Dental Society was held in the Officers' Mess at RCAF Station Trenton. The speaker was Major DN Newell from the RCDC School, who presented two excellent lectures on diagnosis and treatment of periodontal problems. Dinner was served in the private dining room, and following a toast to the RCDC proposed by Lt Col NA Butcher, a decorated 50th anniversary cake was cut and served to the guests.

Anniversary Celebrations



The RCDC 50th Anniversary was celebrated at RCAF Station Trenton on 18 Jun 65, with a Golf Tournament, followed by a dinner and social evening. Between fifty and sixty golfers participated in the event, and a few non-golfers were entertained by other activities, including a boat cruise on the Bay of Quinte. Personnel from the RCDC School, 1 Dent Det and 1 Dent Eqpt Dep participated. Sgt WE Hill of 1 Dent Det was tournament champion.

As one of the local celebrations of the RCDC 50th Anniversary, an all ranks party was held in London at the "Friar's Cellar" on 11 May 65. This was a highly enjoyable occasion attended by personnel and wives or girl friends from Clinton, Centralia and London.

Fishing Derby

Trenton area personnel of 13 Coy held a Fishing Derby on 9 Jun 65 at Wellers Bay. The prize for the largest fish was won by WO1 RH Daw, second prize when to WO2 EE Mazerall and a consolation award to Cpl RD Veinot. No one had catches which would break any records, but all enjoyed the fresh air, and the refreshments which followed.

Notice

The Third Annual Golf Tournament will be held in Camp Borden 24-25 Sep.

14 Dent Coy

Anniversary Celebrations

The 50th Anniversary of the RCDC was celebrated on 3 Apr 65 in conjunction with the Unit's Annual Bonspiel, followed by dining, dancing and the awarding of prizes. The 50th Anniversary was further celebrated by the Annual Posting Party held for personnel in the Winnipeg Area on Friday 28 May 65 at RCAF Station Winnipeg.

Commendation - City of Winnipeg



SD 190344 Sgt Yeates JRC received an award from the City of Winnipeg for his services in the Fort Rouge Community Centre and for Guide and Scout Instruction in the district of Tuxedo.



15 Dent Coy

Anniversary Celebrations

An all ranks formal dinner was held at RCAF Station St Jean 7 May 65 to celebrate the Corps Anniversary. Guests of honour were: W/C DK Deyell, representing G/C GK Cameron, Commanding Officer RCAF Stn St Jean, Dr VHT Jekyll speaker of the evening and Drs AR Ramsay and HE McKenna.



L. to R. Sgt JIJ Boulanger, Cpl JRR Roy, Cpl RE Thompson, Lt Col FD Charman, WO2 HEG Franzgrote, Ssgt JAJ Fret

RCDC School

Anniversary Celebrations

The fiftieth anniversary celebrations at the RCDC School extended over a one-week period from 25 Apr to 2 May. Church parades were held in the Protestant and Roman Catholic Chapels in Camp Borden. Capt DG Cartwright was Parade Commander and WO2 EM Lobb CSM of the Protestant Parade, while Lt RG Peebles and WO2 AG Ponton performed the same duties on the Roman Catholic Parade.

On Friday evening, 30 Apr the CFMSTC Sgts' Mess was the setting for an RCDC all-ranks dance. This enjoyable evening was highlighted by Colonel GR Covey and Cply DE Fraser cutting the anniversary cake. Following this ceremony Col Covey read a congratulatory message from the Hon Paul T Hellyer, Minister of National Defence.

Other formal celebrations were held at the RCDC School on Sunday, 2 May when guests were received by Colonel and Mrs GR Covey and RSM and Mrs CH Loken. The guests were conducted through the School to observe displays prepared by staff officers and men. Following the activities at the RCDC School guests were entertained at cocktail parties in the CFMSTC Officers' and Sergeants' Messes.

Staff Activities

Colonel GR Covey accompanied by Mrs Covey made the annual liaison visit to the Medical Field Service School, Fort Sam Houston, Texas from 23-27 Mar 65.

WO1 Chas Loken has joined a select group by virtue of a hole-in-one on the second hole of the Camp Borden Golf Course on 5 Jun.

1 Dent Eqpt Dep

Anniversary Celebrations

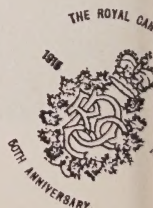
The Corps Anniversary was given a great deal of publicity in Petawawa when the Diamond Jubilee of the Camp was celebrated. A display showing today's field equipment and a modern static clinic was constructed by Depot personnel as part of the overall Camp Petawawa Jubilee Day.

Retirements

Mr M. Dick, a civilian storeman with the Depot for the past nine years retired on 19 Mar 65. Personnel of the Unit gathered in the Sgts' Mess to bid farewell and present Mr Dick with an appropriate gift.

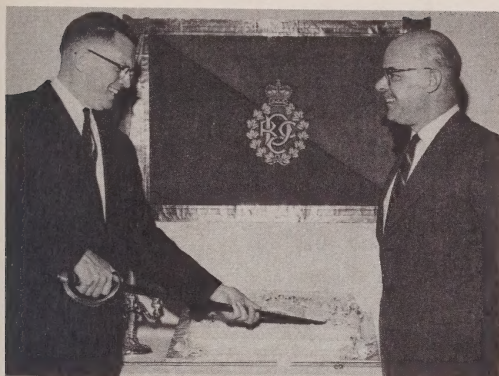
Notice

PLAN TO ATTEND RCDC GOLF TOURNAMENT SEP 24-25



4 Fd Dent Coy

Anniversary Celebrations



On 20 May a mixed all ranks party was held at 1 Tpt Coy Sgts' Mess in Fort Chambly. The well attended party was held both to fete personnel returning to Canada and as a 50th Anniversary Celebration for the Dental Corps.

L. to R. Lt Col G MacDougall, Col WK Lye, Commander CBUE



35 Fd Dent Unit

Special Events

35 Fd Dent Unit was host to a dental study group composed of dental officers from the US Army, US Air Force and the RCDC.

Capt Kostyniuk and Sgt Jennings with their families represented the dental element at a combined church service for all Protestant French Nationals of Metz.

Sports

Pte Bob Clarke our Tpt Operator was on the winning Air Div Basketball team in the High School and Air Div HQ League. In the inter-mess volleyball his team reached the finals.

Sgt Jennings was a member of the Sgts' Mess Volleyball Team that reached the semi-finals in the Inter-Mess League.

Cpl Wadden and his air force partner won the Sgts' and Cpls' Mess Cribbage Tournament in March.

CBU (UNEF)

Leave and Tours

In March Capt JHG Charron was able to arrange 24 days leave at his home in Laval, PQ and in June took a 4 day tour of Jerusalem. Ssgt Shappee, Sgt Sabine-Pasley and Cpl Harrett spent seven days in June at the UNEF leave centre, Beirut, Lebanon.

Special Events

The CBC party, UNEF Showcase, featuring Gordie Tapp, Tommy Common and troupe played a special show before all members of the UN Force on Canada Day sponsored by the Canadians who were the hosts in Camp Rafah.

One "bright" event was the visit to the Dental Clinic by "Miss Canada 1965", Linda Douma.

Welcome to the Corps

A cordial welcome is extended to the following personnel on their recent graduation and promotion to Captain: Captains AF Brothers, RF Cooper, EF Foley, GR Nye, HS Wood, GS Zwicker from Dalhousie University, Halifax, NS; Captains JA Boucher, HJ Nadeau from University of Montreal, Montreal, PQ; Captain DN Charles, McGill University, Montreal, PQ; Captains Z Tukums, JC Wamberra from the University of Toronto, Toronto, Ont; Captains DG Jones, JD McCallum from the University of Manitoba, Winnipeg, Man; Captains RB Andrews, JJ Anderson, BB Berezan, WG Ebert, FH Harreman from the University of Alberta, Edmonton, Alta.

Other new members in the Corps are: Ptes RF Abfalter, ML Allen, JAN Audet, F Bosch, GB Bristow, GN Challenger, TV Girdlestone, KV Hansen, LR Hatcher, NJF Hope, MG Olinik, WG Palmer, LA Russell, NB Sharp, Mr DW Chalmers, Mrs A Bickley and Mrs D McClary.

Professional Training

University of Michigan - Ann Arbor, Michigan

Lt Col Charman - Minor Oral Surgery - 39 Mar-9 Apr 65. Major DJ Carmichael - Crown and Bridge - 8 Mar-19 Mar 65.

The Doctors Hospital - Toronto, Ontario

Major DJ MacPhee - Oral Surgery - 26 Apr-18 Jun 65.

US Naval Dental School - Bethesda, Maryland

Lt Col CM Cornish - Oral Pathology - 8 Feb-12 Feb 65. Major JI Gordon Crown and Bridge - 19 Apr-23 Apr 65. Major JCE McDonald - Crown and Bridge - 19 Apr-4 Jun 65. Captain MN Deyette - Crown and Bridge - 19 Apr-23 Apr 65.

RCDC School - Camp Borden, Ontario

Officers Clinical Course - 15 Feb-19 Mar 65

Lt Cols JG Bulter and NA Butcher, Majors C Brown, HJ Cashin, JLY Cryenne and DR Girard.

Training

RCDC School - Camp Borden - DT Lab Gp 4 Course - 10 May-18 Jun 65

Sgts RJ Goodwin, RJJ Tremblay, RA Malpas, NC Petersen, GE McGunigal, AM Jerome, DB Wood.

DA Gp 1 Course - 22 Mar-30 Apr 65

Cpls WB Looker, RC Wormington, Ptes JA Atherton, JAN Audet, HE Ayerst, GH Challenger, JD Clark, JD Cormie, RW Danyluck, HBM George, TV Girdlestone, FN Hagglund, KV Hansen, JAP Hogan, RK James, H Kalmet, GK McDonald, HJ McGilivray, JB McEwen, MG Olinik, JP Pitchford, GW Porteous, JR Ritchie, DF Ross, LA Russell, EJ Schultz, NB Sharpe, JLE Viollette, and Mr TM Hicks.

Promotions

To Col - GC Evans; To Lt Col - AW Brusso; To Major - JCRR Roy, Y Kamachi; To Capt - M Kostyniuk.
To WO1 - JE Shiner, AJ Greco; To WO2 - JA Fraser, AS Field, VR Kidd, JH Sadler, SE Robertson, CC Jewson, C Johnston; To Ssgt - DR Piche, FM Kennedy, WD MacDougall; To Sgt - DL Fenton, PD Peterson; To Cpl - PE Harkin, AM Burns, WPC Harmer, DS Smith, RE Todd, JM White, AH Peck, J Van Hemert.
RCAF to Sgt - GAMJ Ridley; To Cpl - EC James, JM Mackie, MTV Lapointe, FB Schmaltz.

Retirements and Releases

Col AC Leman; Maj HE McKenna; Capts DS Campbell, PA Dailyde, WJ Froese, VD Kvedaras, JJPG Roussel, WTH Harley, JGB Parent, AB Perkin, J Vincent; WO2 W Powers; Ssgt FR Taylor; Sgts BW Holtham, GD Schwarze; Cpls PAP Hughes, PA McCoy; Ptes SD Delnick, RG Moffatt, G PaL Morissette, WA Cathcart.
RCAF Cpls MHC Jeager, PLM Kennedy; LAWs MOB Golembioski, MJ Gregerson, PJJ Lockyer, J Green; AW2 JE Wood; Mrs S Carey, Mrs EM Onlock.

Vital Statistics

Marriages - Pte LE Wannamaker to Mary Anne Hanake.

Births - Son - Cpl & Mrs CS Brown, Lt & Mrs EA Church, Sgt & Mrs JP Dignard, Cpl & Mrs Dumas, Cpl & Mrs BA Green, Capt & Mrs JPA Legendre, Ssgt & Mrs RF Matheson, Sgt & Mrs FK MacKay, Cpl & Mrs DT McRoberts, Cpl & Mrs LJP Nadeau, WO2 & Mrs DD Robertson, Ssgt & Mrs JR Savoie. Daughter - Capt & Mrs LA Armstrong, Maj & Mrs JF Begin, Pte & Mrs RW Danyluck, Ssgt & Mrs J Dion (twins), Pte & Mrs HE Lubitz, Pte & Mrs JP Pitchford, Capt & Mrs JR Robertson, Maj & Mrs JY Turcotte.

Deaths - WO2 GM Armstrong, Col FR Drewry (retired).



The

ROYAL CANADIAN DENTAL CORPS

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Quarterly



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Cover Photograph

Harpooned White Whales
Churchill, Man

THE PTERYGOMANDIBULAR SPACE -
ITS SIGNIFICANCE IN LOCAL ANAESTHESIA

J.P. Coupland, DDS, FACD, FICD
Consultant in Oral Surgery
Royal Canadian Dental Corps



Dr. J.P. Coupland

The importance of the mandibular canal to dentistry is well established and its course through the mandible is reasonably well known by most dentists. It is doubtful if the same degree of familiarity applies to the pterygomandibular space - the anatomic region through which the contents of the mandibular canal reach its commencement at the mandibular foramen. (Fig 1)

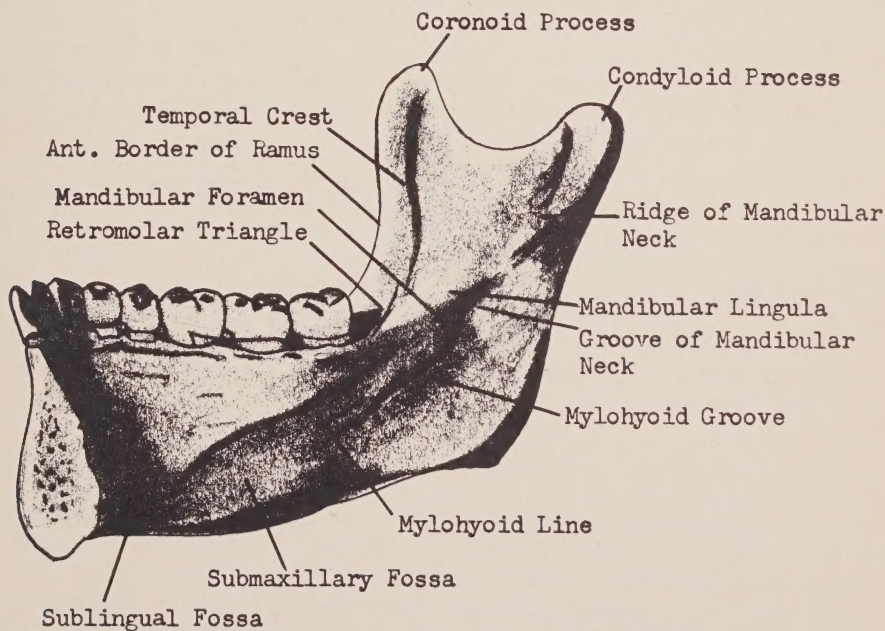


Fig 1. Medial Aspects of Mandible
(Redrawn after Sicher)

Descriptive Anatomy

According to Sicher "The pterygomandibular space is a well-defined space between the mandibular ramus and the pterygoid muscles. Its lateral wall is formed by the inner surface of the ramus of the mandible, its medial wall by the internal pterygoid muscle, its roof by the external pterygoid muscle. In frontal section the pterygomandibular space is triangular, narrowing downward where the internal pterygoid muscle converges with the bone to which it is attached. The pterygomandibular space communicates posteriorly with the retromandibular and infratemporal grooves. It is thus in relation with the parotid gland which fills the space behind the mandibular ramus."(1) Anteriorly it is separated from the oral cavity by the thin plate of the buccinator muscle and the oral mucosa. "The pterygomandibular space is filled with loose connective tissue which contains a variable amount of fat. The contents of the space are the lingual nerve in front and the inferior alveolar nerve behind. Posterior and lateral to the alveolar nerve are found the inferior alveolar artery and veins which converge with the nerve toward the mandibular foramen."(2)

The importance of local anaesthesia in dental practice is too well established to require documentation. The role of the Inferior Alveolar Nerve Block (more idiomatically called the Mandibular Injection) is equally accepted. As the receptacle of the local anaesthetic solution for the mandibular injection the pterygomandibular space is entitled to special study.

The boundaries of the pterygomandibular space consisting of the ascending ramus and the relatively impermeable pterygoid muscles effectively confine a solution deposited within the space. The loose connective tissue which occupies the space has a sponge-like property which readily accepts and diffuses the deposited solution so that theoretically the anaesthetic solution if introduced anywhere within the space will be quickly dispersed within the confines of its boundaries.

It has been pointed out by Sicher that only two relatively thin tissues, the mucosa and the fan shaped buccinator muscle, separate the oral cavity from the pterygomandibular space(2) - measured in millimeters not less than three nor usually more than five. According to Shapiro "The distance from the point of insertion of the needle to the foramen is approximately one-half inch".(3) These measurements suggest that when the standard 25 gauge needle 35 mm (1-5/8") in length is used it is easy to deposit the anaesthetic too deeply and "overshoot" the foramen.

One of the most informative studies on diffusion of the anaesthetic solution for a mandibular injection was conducted by Berns and Sadove.(4) In a series of 66 cases they traced the course taken by a local anaesthetic solution by adding a soluble radiopaque material (diatrizoate sodium) to 2% xylocaine with 1/50,000 epinephrine and injecting the mixture. Extraoral radiographs were taken immediately and the effectiveness of the anaesthesia evaluated as to onset, duration and depth. Their studies confirmed the clinical observation that the effectiveness of the injection is directly related to its proximity to the nerve and that relatively little solution need be used if accurately placed.

This same study seemed to demonstrate a significant occurrence not previously reported: the tendency of the injected solution to diffuse posteriorly rather than laterally or, much less, anteriorly. Translating this experimental investigation into clinical application it is reasonable to conclude that the point at which the solution is deposited, if not in the mandibular foramen, should be anterior to it rather than posterior and that in the lateral plane the needle point should be close to, if not in contact with, the bone of the ascending ramus.

Another and perhaps even better reason for depositing the local anaesthetic solution in or close to the mandibular foramen is the route by which the inferior alveolar nerve reaches its point of entry to the mandible. No words of the author could improve upon Sicher's description "The inferior alveolar nerve, the intermediate branch of the third trigeminal division, descends behind and slightly lateral to the lingual nerve between the two pterygoid muscles. It winds around the lower border of the external pterygoid muscle, which separate the alveolar nerve from the mandibular ramus, and then turns sharply outward and downward to reach the inner surface of the mandible at the mandibular foramen which it enters. It is important to stress the fact that the lower alveolar nerve has no contact with the mandible above the entrance into the mandibular canal."(5) (Fig 2)

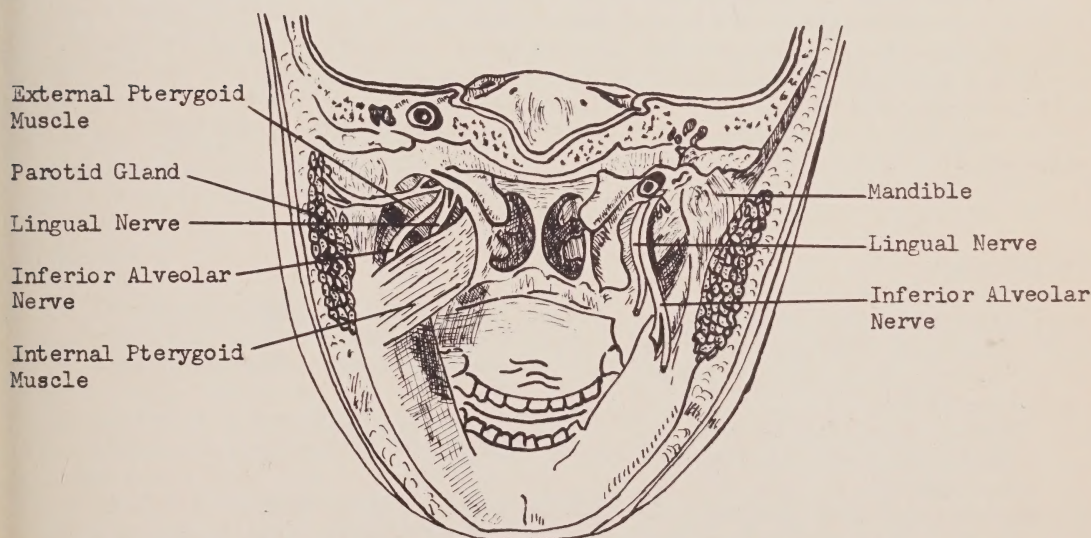


Fig 2. Course of Inferior Alveolar Nerve Through the Pterygomandibular Space (Redrawn after Sicher)

The dental officer during his professional training is likely to find that more emphasis is placed on the desirability of making a "direct hit" on the mandibular foramen than is placed on the not improbable possibility of achieving his objective and thereby depositing the local anaesthetic solution beside if not within the neurovascular bundle which is its contents. By any engineering standards a target 4 mm in width and 12 mm below the surface should be easily located. It is therefore hardly surprising that studies by Harris(6), Shira(7), Schiano and Strambi(8), have shown that as many as 12% of mandibular injections are intravascular. The dangers of directly introducing a local anaesthetic agent with its accompanying vasoconstrictor agent has been stressed by many authors.

An explanation for the high incidence of intravascular injections may have been too simple to be considered worth mentioning. It has already been suggested that a "direct hit" with a 25 gauge (.5 mm) needle on the neurovascular bundle that enters the mandibular canal should not be difficult. Assuming that the bundle is 5 mm in diameter one may assume that the artery, vein and nerve each occupy one-third of the bundle so that each would have a diameter of approximately 1.6 mm. Expressed as a mathematical probability it is not the least surprising that intravascular injections are as frequent as investigators have reported. What is more significant is the obligation to use the aspirating type of syringes for local anaesthesia.

Summary

The anatomy of the pterygomandibular space has been reviewed. The significance of the pterygomandibular space as related to the mandibular injection has been discussed. Possible reasons for failures and suggestions for improving mandibular injections have been suggested. The importance of using only the aspirating type of local anaesthetic syringe has been emphasized.

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THE ROYAL CANADIAN DENTAL CORPS
IN THE LAND OF NANUK

Lt Col L.R. Pierce, CD, DDS



Lt Col L.R. Pierce

For nearly nineteen years personnel of the Royal Canadian Dental Corps have been employed North of the 58th parallel, on the centuries-old pathway for the Spring and Fall migration of the legendary cream-coloured beast known to the Eskimo as Nanuk. Others recognize him as the polar bear, Monarch of the North, but by whatever name he is known he is a most conspicuous visitor in and about the confines of Fort Churchill Garrison for several months of each year.

The recorded history of this area on the rocky shore of Hudson Bay dates back to the year 1619 when a Danish sailor Jens Munck and 64 others wintered within sight of the present military establishment. The harsh climate and an outbreak of scurvy accounted for all but three of the party who returned to Denmark the following year. Nearly 100 years later an English explorer, Captain James Knight, stepped ashore near the same site. In his diary Captain Knight wrote these words: "I never see such a miserable place". Similar expressions of dismay have been uttered from time to time by many servicemen and their families during the past two decades. However, despite the bitter cold and constant winds, Fort Churchill is now a highly organized Northern community, capable of supporting 3500 people in comfortable quarters and with most of the amenities of civilized living.

Fort Churchill is a name which has certain historical significance. About the year 1690 the British erected a fort near the existing trading post of the Hudson Bay Company and named it for Sir John Churchill, later Duke of Marlborough. Consumed by fire a few years later, it was replaced in 1733 by Fort Prince of Wales which was promptly ransacked by the French. The garrison was eventually restored by the British in 1782 as Fort Churchill. During the ensuing years both the fort and its name were abandoned until October 1946 when the Canadian Army took over from the Department of Transport the sprawling tarpaper encampment which had been established in 1942 as part of an air route to the United Kingdom. Thus the third Fort Churchill came into being.

It was at this time that the first Dental Corps representative, Sgt E.L. Proudfoot, arrived and set up the first Fort Churchill dental clinic in one small room of the hospital. By the time Major R. Kinney arrived a week or so later the operating bay was ready, complete with an "A" Kit and a portable

engine which had an electric motor attached. The latter item, as well as a sterilizer and miscellaneous other equipment, was procured from sources best left unidentified.

Because there were only four families and a small number of single servicemen in the new camp, the few available amenities, primarily bowling and curling, were very popular. The other main diversion and the highlight of each week was the Wednesday arrival of the train, which was the source of all mail and new faces.

Cpl A. Rew arrived in November 1947 to replace Sgt Proudfoot who it is assumed caught the first train to Winnipeg with considerable joy in his heart. Major O.W. Crummey took over the clinic in December 1948 and the next dental assistant, Sgt H. Hodkinson, arrived the following month.

One of the tribulations during this early period was the lack of a water system. Water from a nearby lake was distributed to various points by truck and occasionally in extremely cold weather it was impossible for deliveries to be made in camp before the water froze. Because there were no flush toilets, a similar tank truck would appear infrequently, towing a steam generator which would force steam into the tanks beneath the lavatories and pump out the contents. No doubt some inhabitants lived in mortal fear that the two trucks might one day be wrongly employed.

During 1949 Capt G. MacDougall, Sgt A. Brown and Cpls G.S. Gilbert, K. Daw and D. Casson arrived. Cpl Gilbert was the first dental laboratory technician to be employed at Fort Churchill. Prior to the arrival of Capt MacDougall and his assistant Sgt A. Brown the existing clinic was enlarged to provide an area approximately 9 by 15 feet where the two dental officers worked back to back in very close quarters. During their stay in the north, Capt MacDougall and Cpl Gilbert were strong supporters of the chapel choir, as vocalist and pianist respectively.

By 1949 Fort Churchill was well established as a Joint Services station administered by the Canadian Army. The various components of the RCN, RCAF, Defence Research Board, Department of Transport, US Army and USAF all continued to increase the number of personnel as the scope of their training and testing projects expanded. The tar-paper shack camp gradually had blossomed into a network of well constructed permanent buildings with central heating and running water and the population had grown appreciably. The heavily burdened dental clinic was faced with a commitment of approximately 4000 potential patients and with the passing of time, this figure climbed to well over 5000.

For some readers these figures may have little meaning, but, to the Corps personnel who served during those years of inadequate clinic accommodation and staff, the overpowering workload was ever present and real. Because the nearest civilian dentist was 500 miles away in Le Pas, each day's work involved treatment for Eskimos, Indians, civilians from the camp and townsite of Churchill, as well as for servicemen and their dependents. Under such circumstances the requirements for monthly submissions of accurate treatment records and returns taxed the administrative abilities of all clinic personnel. Automatically, as each new staff member arrived, the Manual of Dental Services became required reading material for many evenings.

Extensive construction to provide permanent buildings, married quarters, and a DND school swung into high gear in late 1949 with a concomitant increase in population. The PMQs were well planned, reasonably spacious, and compared favourably with accommodation available anywhere. These two storey blocks were assembled in long rows on either side of a heated corridor with fire-doors at regular intervals. Hence it was possible to visit thirty or more families without going outside into the cold. In a similar manner the single quarters were linked by heated corridors to the theatre, garrison shop, messes, canteens and most of the available amenities.

As frequently happens in the services, after almost everyone else was comfortably settled and housed, thought was finally given to improving the dental clinic. A wing of the hospital was converted into four operating bays, an X-ray room, laboratory, and the usual offices and storage space. These facilities, which proved to be quite adequate, were completed in the autumn of 1951 just prior to the arrival of Pte W. Horton, a Laboratory Technician.

Incoming personnel during 1952 included Pte J. Gagnon, Major C.G.B. Grant and Capt I.W. Susser, who were followed in 1953 by Capt J. Walker and Sgts D. Wood and J. Fraser. Major Grant became Officer-in-Charge when Major Crumney departed in Mar 53 after more than four years - the longest tour at Fort Churchill for a member of the RCDC.

The new arrivals took up their daily tasks with enthusiasm and were soon participating in a variety of sports, hobbies and social activities. There were always ardent hockey and curling enthusiasts and the many budding photographers and badminton players were equally willing to relate their current exploits. The numerous avid hunters and anglers seldom returned to camp empty handed since wild life was most plentiful and every small lake or river teemed with fish. Once or twice each summer when schools of white whales would appear at the townsite harbour the local Indians and Eskimos would put on a skillful demonstration of the handling of small boats and the use of harpoons in capturing these mammals; a spectacle always well attended by garrison residents. The curlers and hockey enthusiasts had a particularly long season although occasionally these activities would cease for several days because it was so cold inside the curling rink and hockey arena that the ice would crack and splinter. Winter sports participants learned to accept the ungainly parkas, windpants and shearling-lined boots as necessary evils.

An unusual diversion was engaged in by Pte Gagnon who, in addition to being active in sports also spent many hours on his trapline collecting mink and fox. Sgt Fraser was fortunate enough to be a member of the curling team that participated in the Prairie Command Bonspiel during the winter of 1953-54. Another notable event involved Capt Walker who entered the state of matrimony in the Autumn of 1953. Because PMQs for dental personnel were very restricted at that time, his tour was shortened and he moved to RCAF Station MacDonald early the following year. It was also during that winter that the first firing of Nike rockets was made by Canadian troops.

Capt C. Brown commenced a tour of eighteen months in early 1954 and Major G. Finkbeiner arrived during the summer as the new Senior Dental Officer. In 1955 the only RCDC arrival at the clinic was Capt J. Mergl. During that same year a battalion of the US Army Corps of Engineers began construction of a 12 mile road across the muskeg and tundra, at the end of which they created the

Fort Churchill Rocket Firing Range which received considerable publicity during the International Geophysical Year, 1956-58. Accompanying these troops was an American Dental Officer and his assistant who were provided with an operating bay in the RCDC clinic - a situation that proved to be both pleasant and beneficial to everyone.

By this time Fort Churchill had grown into a busy metropolis and the townsite of Churchill, five miles away, could boast of a supermarket (Northern style), liquor and furniture stores, and new government buildings. The train service was now more frequent and Canadian Pacific Airlines had daily flights to and from Winnipeg. Later, Transair bought the air franchise and established a direct route to Ottawa and Montreal. As a result of these facilities the sensation of being isolated in Churchill was largely dissipated, although the cost of a trip to the "outside" did not appeal to most service personnel.



Townsite of Churchill

Sgt W. Hill, Pte D. White, and Major L. Pierce arrived in 1956 to replace others who had completed their tours. They were joined in 1957 by Capt G. Crossman and Cpl G. Cote. Each new arrival was soon caught in the whirl of the busy clinic routine, the extensive social life and, above all, sports. Practically everyone belonged to at least one curling rink and the truly sports minded, which included Capt Crossman and Sgt Hill, were also stalwarts in hockey, volleyball, and softball. Normally the softball season was limited to the six or seven weeks when it was warm enough to play an outdoor sport. For the rest of the year, all residents of Fort Churchill were governed in dress and activities by the varying degrees of coldness.

Within a day or two of arriving in camp all service personnel were provided with environmental clothing for protection against the weather. The issued items were parkas, windpants, double mitts and shearling-lined boots. The parka was worn a good portion of the year, but the other items were used only when the windchill was high or when it was necessary to be outside for more than fifteen minutes. A majority of the residents trimmed the hoods of their parkas with wolverine or arctic wolf furs. This was neither a status symbol nor a "regimental quiff": it was simply a very satisfactory method of ensuring visibility and protecting the face from frostbite in high winds and blizzards.

The Churchill region is quite dry: indeed, in a warmer part of the world it would be described as semi-desert. For this reason, many residents of PMQs purchased humidifiers which were run constantly to prevent the wooden furniture from developing loose joints and collapsing through moisture loss. Winter at Churchill lasts about eight months and begins with consistent below-freezing temperatures in October. January is the coldest month, ranging from 16 to 20 below zero. The thaw generally begins toward the end of May and during June the ice begins to break up in Hudson Bay. Rarely can the first grain ships enter the harbour at Churchill townsite before the middle of July.

To those who picture arctic and subarctic regions as areas where snow is of mountainous proportions, it may seem unbelievable that over a 20 year period the snowfall at Fort Churchill averaged only 45.1 inches, which is less than half that of Montreal and considerably less than most places in Ontario and on the Prairies.

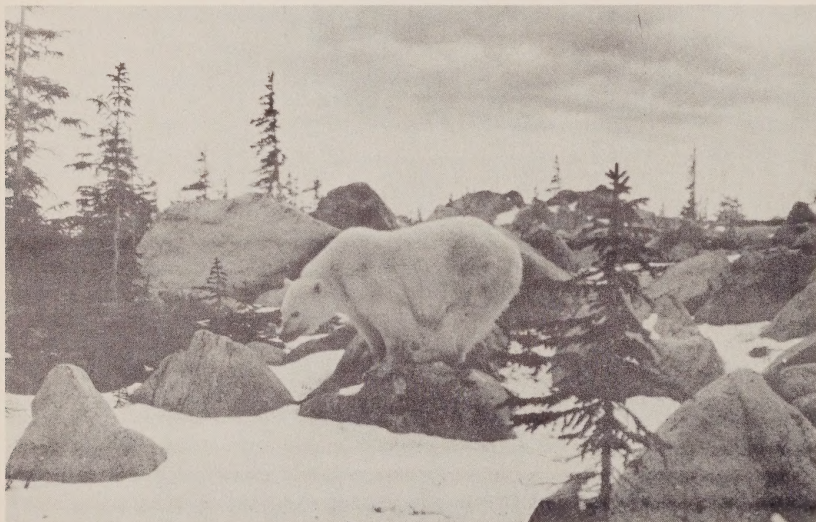
When the snow comes to Churchill, however, it stays--and stays and stays. The resulting drifts, often six or eight feet high, are so hard-packed that they readily support vehicular traffic.



Dog Team on "The Bay"

Lest some readers who have spent winters on the Prairies or other Northern locations gain the impression that winters in Churchill are rather puny affairs, it should be pointed out that the most significant factor in Churchill's weather picture is the almost constant high winds. These are of such magnitude and frequency that the manner in which inhabitants of the region dressed and carried out their duties was directly related to the statistically computed "Windchill Factor". Windchill is a relatively new meteorological concept which is a measure of the body heat that the air is capable of removing from exposed skin in a given time; it is a factor of temperature and wind. The computed figures express with accuracy the degree of discomfort or danger for humans and are therefore especially significant in a region like Churchill. Whereas a windchill of 1200 is quite comfortable when a person is properly clothed, at 2000 exposed areas of the face freeze in one minute and 2490 is roughly equivalent to 175 below zero in a very gentle wind. The highest windchill factor ever recorded at Fort Churchill was 2530 in January 1962. On the basis of windchill it is a fact that for a period each winter Churchill has more severe weather than the North Pole!

During 1958, as a result of the normal turnover and an increase in the clinic staff, a number of new faces appeared: Cpl R. Lowery, Cpts H. Cashin, and S. Claman, Sgt A. Arsenault, and Major J. Bourque. One of Sgt A. Arsenault's pet diversions was waking the polar bears who were often "sleeping it off" at the back door of the clinic after having gorged themselves at the garbage cans of the adjacent hospital kitchen.



Polar Bears
near
camp area

The arrival of Cpl R. Walker, Sgt R. Jones and Cpts J. Eadon and H. Paturel, took place in 1959. During his tour Capt Eadon spent a portion of one leave period working for the Indian and Northern Health Services, providing dental treatment at Eskimo communities located at Chesterfield and Rankin Inlet, Whale Cove and Eskimo Point. Air transportation was provided by the RCMP and, when forced by inclement weather to make an unplanned stay at Resolute Bay, Capt Eadon rendered treatment there as well.

The following years Capt C. Arpin, Sgts K. Buckholz and W. MacDougall arrived as well as a new Senior Dental Officer in the person of Major J. Jolly.

During most of his tour Major Jolly served as Chairman of the Maple Leaf Services Committee which was a large undertaking, since MLS at this time controlled the grocery store, canteens, theatre, bowling alley and other amenities.

It is also recalled that during the winter of 1960-61 Sgt MacDougall suffered a serious and painful knee injury while on the Arctic Indoctrination Course which all medically fit personnel on strength of Fort Churchill Garrison had been required to take since 1956. Although the details of the course varied from year to year, the first two or three days were invariably taken up with lectures. The subjects covered included navigation, the proper use of Arctic equipment and clothing and the building of various types of shelter, such as snow caves, igloos and lean-to's. The practical portion of the course consisted of two days and nights on the tundra where candidates alternated between acting as navigators and pulling loaded toboggans. Everyone took turns at cooking, chopping wood for the fire, or cutting ice to obtain water. These tasks, as well as digging snow caves, setting up tents, and snow-shoeing were certainly a far cry from the sedentary occupations to be found in a dental clinic.

All new arrivals to the Churchill clinic looked forward to their "trial by tundra" with a certain amount of natural trepidation which was just as naturally aided and abetted by those who had previously completed the course and who regaled the potential candidates with some rather scandalous embellishments of the potential hazards. Although it was a rugged experience, it is safe to say that each candidate had a feeling of deep satisfaction when he received his diploma at the end of the course if only because he in his turn was now qualified to relate "Arctic Tales" to all the uninitiated members of the clinic staff.

Prior to the arrival of Capt H. Brogan and Ssgt Fediuk in 1961, Cpl R. Walker developed what the writer believes was the first indoor soccer tournament, a project that evoked great enthusiasm from both players and spectators. During that same year Capt Paturel and Cpl G. MacDonald emplaned from Fort Churchill to provide treatment for servicemen and civilian federal employees at Alert which is situated several hundred miles to the North. They were grounded at a series of places, (none of them named Alert), by either blizzards or engine trouble caused by the severely low temperatures.

A most energetic person around Churchill during this period was Capt Brogan, who spent nearly three years there and was an ardent hunter and angler. In addition to these activities he managed not only to organize the Fort Churchill Skeet Club but also acted as Cadet Corps Training Officer.

Those who served at No 8 clinic during the earlier years were able to purchase, at reasonable prices, the highly regarded Eskimo carvings of soapstone and ivory; the latter material being obtained from walrus tusks. In that period also many living rooms displayed arctic wolf and polar bear rugs. Eventually, however, strict government controls made these items very expensive and the shopper had to be wary of Oriental imports.

It is felt that everyone who served for any length of time at Churchill was greatly impressed by the pervading sense of friendship and obligation to one's neighbours and associates, a feeling which fostered a true community spirit. One striking example of this spirit was the walking blood bank system.

For a number of reasons it was impossible for the RCAMC hospital to keep adequate blood available for all emergencies and one stormy Sunday night massive transfusions were required for a maternity patient. The local radio station CHFC made the announcement and requested listeners with a particular blood group to report to the hospital. In less than 15 minutes there were four donors on hand, three of whom were RCDC personnel!

It can be appreciated that in such a diversified dental practice, which served Eskimos, Indians, and a multitude of nationalities from the grain boats, the language barrier was a daily clinic problem, particularly when, as often happened, an interpreter was unavailable. One humorous example of these difficulties occurred when an Eskimo woman who was able to speak little English was being treated at the try-in stage for a denture. Repeatedly she looked up at the dental officer and said "Gotta pay". Several times he explained patiently that the Great White Fathers in Ottawa were providing the denture free. The poor woman became quite agitated and finally started patting her abdomen as she repeated "Gotta pay", "Gotta pay". At this point a discerning dental nurse guided her to the washroom. The appointment was then continued uneventfully.

Staff arrivals in 1962 included Major P. Fafard, Capt W. Froese, Cpl J. MacLean, Pte D. Mand, and Sgt D. Playford. In addition to his duties as Officer-in-Charge of the clinic, Major Fafard served as PMC of the Officer's Mess for many months. All these people were soon involved in a heavy work schedule and in a social life that was just as frantic. With regard to social activities, perhaps only those who have also served in out-of-the-way places can fully understand the enthusiasm which is displayed when live entertainment such as USO Shows or the Winnipeg Symphony Orchestra, visited Churchill. The same enthusiasm was evident in the planning of celebrations for both Canadian and US holidays as well as in providing lavish hospitality for all visitors from "The Outside".

By the time Capt L. Armstrong and Cpls H. McRae and R. Black reported for duty in 1963, the changing concepts of North American Defence dictated an end to the varied roles of Fort Churchill. The rocket launching site, so tragically destroyed by fire in 1961, had been replaced the following year and will presumably continue to be used for some time. On the other hand, the huge refuelling planes of Strategic Air Command ceased to operate there in 1963 and on 31 March 1964 the RCAF unit closed and the Canadian Army officially handed over the garrison to the Dept of Public Works. This event did not end the RCDC's commitment in Fort Churchill however, although No 8 clinic of No 14 Dent Coy has turned full cycle and once again is a one-operator clinic. The present dental officer, Major H. Meisner, and his assistant Cpl N. Cable took over the clinic during the summer of 1964 and since that time a civilian dental nurse has also been posted to the clinic.

The future of the Corps in Fort Churchill is a matter for conjecture at this time, but one thing is certain, for many years to come a glimpse of the Aurora Borealis, the mention of polar bears or white whales, or a display of Eskimo carvings will undoubtedly release a flood of warm memories among those who served with the RCDC in the land of Nanuk.

Note

The writer is aware of his failure to mention the many dedicated Dental Nurses who contributed so materially to the successful operation of No 8 Clinic over the years. Incomplete records and the lack of space precluded naming them as well as many RCDC personnel who spent varying periods on Temporary Duty at Fort Churchill.

RESTORING TISSUE HEALTH UNDER DENTURES

Lt Col L.A. Richardson, CD, DDS



Lt Col L.A. Richardson

In recent years prosthodontists have become increasingly interested in the health of the supporting tissues of dentures. For example, Pleasure (1) has written: "In view of the unnatural demands which dentures impose upon the oral mucosa it is no wonder that the observant operator is alert to detect evidence of irritation starting with mild, acute erythema which, if neglected, will produce epithelial and fibrotic changes and ultimately resorption of underlying bone. These lesions are incurred far more frequently than the joint symptoms to which we have been so attentive. Too commonly these irritations of the mucosa are regarded as inevitable or are attributed entirely to poor fit of the denture base. Rarely does the operator appreciate the degree of abuse of the oral mucosa resulting from poorly distributed denture loading and from occlusal disharmony which induces small but frequent displacements of the denture base, deformation of the mucosa, and internal shearing stresses."

Various writers (2)(3) agree that restoration of tissue health is ideally accomplished by removing the old dentures from the mouth. Barone (4) reports an increase of as much as 3 millimeters between the tuberosities when the tissues were relieved of an old denture. The complex pattern of modern business and social life makes this effective treatment method nearly impossible to carry out as most patients are unwilling to go without dentures for any period of time.

In the past, various temporary relining procedures have been advocated. Capt Lytle (5)(6) of the U.S. Navy Dental Corps has extensively investigated the effects of wearing ill-fitting dentures and advocated various methods of dealing with these problems. Lt Col Windsor (2) has described one effective technique of carrying out a temporary relining procedure to deal with abused tissues.

In approximately 1960 soft acrylic resin materials first became generally available for this purpose. These materials are marketed under several trade names.* Chase (7) describes their action as "the intermittent stress of force and motion that it transmitted to the basal seat tissues through the resilient, flowing material."

When properly preparing dentures prior to using treatment material there are three procedures which must not be violated:

1. Areas of the denture base which displace or impinge on the basal tissues should be relieved.
2. Vertical dimension of the face must not be increased beyond rest vertical dimension.
3. Gross occlusal disharmonies should be corrected.

Over-extensions must be removed and under-extensions built up with self-curing acrylic or impression compound. Intentional tissue displacement over areas of epulis pissuratum can be accomplished first with impression compound prior to placing the tissue conditioning material in the denture. In cases where there has been gross resorption and displacement of the denture, modifications of the border of the denture can also be made in compound to ensure proper re-orientation of the denture to the foundation base.

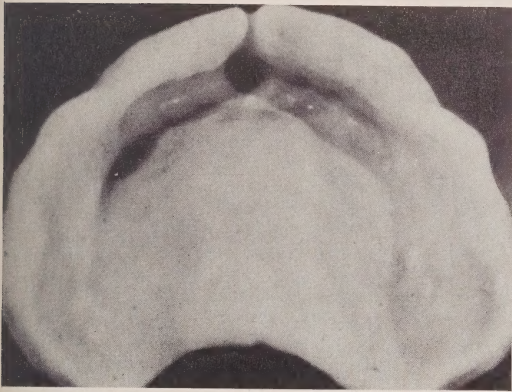
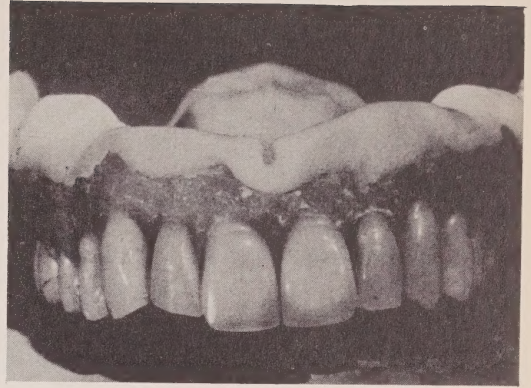
The conditioning material is prepared by mixing an acrylic resin powder with the accompanying liquid according to the manufacturer's specifications. The mixture begins to gel immediately and in approximately ten minutes it is a cohesive resilient mass. The material flows under pressure at a rate inversely proportional to time up to approximately 72 hours.

The material is mixed and placed evenly in the dried upper denture in a semi-liquid state. Care must be taken not to place too much on the labial flange, otherwise anterior displacement of the denture may occur. The denture is seated into place when the material begins to flow sluggishly. The lower denture is placed in the mouth and the patient is instructed to gently tap the posterior teeth together to position the upper denture. Heavy tapping or closure with force will squeeze out too much of the material. During the next 5 to 10 minutes further border molding can be accomplished by having the patient gently suck in on his lips and cheeks as in smoking. After 10 minutes the material will have polymerized sufficiently to allow the lower denture to be removed, and modified in the same manner. Tongue movements are of course required to mold the border of the lingual flange.

In approximately 10 to 15 minutes both dentures can be removed and the excess material on the outside of the denture can be removed with a sharp knife or scissors. Pressure spots or overextended borders not previously located can be reduced and repaired with a small mix of the material. The illustrations show an upper denture correctly modified with tissue conditioning material.

* Hydrocast is the basis of this report.

Labial view of an upper denture modified with tissue conditioning material and worn by the patient for approximately 30 minutes



Tissue surface view of the same denture

The patient is dismissed for two to three days with instructions to use and clean his dentures in the normal manner.

Tissue conditioning procedures are easy to carry out and are readily accepted by the patient. The slight loosening of the denture that occurs over the first two days does not detract from improved comfort and stability of the dentures. The continued flow characteristics of the material allows, during the first two to three days, a compensation for changes in tissue contour resulting from the recovery of tissue health. Removal of sources of tissue trauma, namely, disrupted occlusal forces and lack of fit of the denture base, result in improved tissue health.

After about three days the tissue conditioning material should be scraped or ground out of the denture with a vulcanite bur or Kingsley scraper and replaced with fresh material. If the material is worn in the denture for longer than a couple of weeks it discolors and becomes coarse, hard and grainy.

When the tissues have recovered sufficiently to permit making new impressions of the patient's mouth, the tissue conditioning material can be maintained in the old dentures during fabrication of the new dentures. During this period, the tissue conditioning material need not be changed so frequently.

Chase⁽⁷⁾ reported a requirement of from one to eight treatments in 343 dentures over a period of three to twenty-three days.

It must be pointed out that to be successful, the following principles apply:

1. Occlusion of the dentures must be acceptable to a degree that there are no gross interferences or untoward occlusal forces.
2. Vertical dimension of the dentures must not be excessive.
3. Undesired tissue displacement or distortion by the denture base must be eliminated.
4. The patient must not be allergic to the tissue conditioning material.

SUMMARY

The health of the basal tissues must be restored before making impressions to provide a patient with a new or relined denture. A method of restoring the health of tissues under a denture that permits the patient to have uninterrupted use of his dentures have been described. The procedure is simple and very acceptable to the patient in terms of odor, taste, comfort and social convenience. Tissue conditioning is advocated for cases of denture sore mouth and abused denture foundation tissues.

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DENTAL OFFICER SUBSIDIZATION PLAN TRAINING - 1965

Major W.H. Murray, CD, DDS



Major W.H. Murray

Summer Practical Phases 1, 2 and 3 of DOSP training began at Camp Borden on the 19th of May 1965 when twenty-seven Dental Officer Cadets commenced Phase 1 training with the Royal Canadian School of Infantry.

Phase 1 training consisted of the normal intensive ten-week basic training course at the RCS of I and upon its completion, O/Cdt DJ Morrow of the University of Manitoba was named the Honour Cadet.

Phase 2 candidates numbering twenty-five, commenced training in the early part of June 1965. Stage I of their training, from the 7th to the 27th of June 1965 consisted of RCAF Indoctrination including a tour of Airforce establishments in Europe under the supervision of the Conducting Officer, the Deputy Director General of Dental Services, Colonel IAL Millar. Stage II of their training commenced upon their return to Canada, with Corps Training Part A being conducted at the RCDC School from the 28th of June to the 2nd of July. Subjects covered in a series of thirty-two periods were mainly Clinical and Laboratory Procedures, Organization and Administration and strong emphasis on Documentation and Treatment Policy. Stage III gave the candidates a break from classroom routine from the 5th to the 23rd of July when they embarked on another tour, this time visiting Royal Canadian Navy ships and establishments in Nova Scotia. Stage IV included the continuation of Corps Training Part B at the RCDC School from the 26th of July to the 13th of August when emphasis was placed on practical procedures in the clinic and laboratory, and an introduction was given to National Survival and Nuclear Biological and Chemical Warfare.

O/Cdt HA Pankratz of the University of Manitoba was named Honour Cadet for Phase II training, with O/Cdt TJ Erskine of the University of Alberta as Runner-Up.

Phase 3 candidates, numbering twenty-two, followed the same syllabus as in previous years with Part One, Clinical and Dental Survey Training in June, and Part Two, formal course in Military and Clinical subjects in July.

2Lt JF Stansfield, of the University of Toronto, was named Honour Cadet for Phase 3 training with 2Lt HM Amos of Dalhousie University as Runner-Up. 2Lt JW Bergerman of the University of Manitoba was awarded the Chief Instructor's Trophy for clinical efficiency.

The Director General of Dental Services visited the RCDC School from the 4th to the 6th of August at which time he interviewed Third Phase DOSP Officers and reviewed both Second and Third Phase Officers on their Graduation Parade on the 5th of August. That evening a training Mess Dinner for all DOSP Officers was held by the RCDC School Staff Officers at the CFM and DS Officers Mess.

The RCDC News

The RCDC Golf Tournament

Seventy-two golfers, the largest number to participate in the annual RCDC Tournament to date, were hosted by the RCDC School in Camp Borden on 24-25 September.

Competitors from as far West as Edmonton and as far East as Greenwood Nova Scotia, assembled for this event and were favoured with perhaps the only two consecutive fine days of weather this Fall.

Teams representing seven RCDC units were entered and the RCDC Officers' Trophy for team play was won by No 1 Dental Detachment, Ottawa, with Lt Col Bill Carter, Maj Ed Gazo and Sergeant Bill Hill as members. Their success in this event is becoming a habit, since 1 Dent Det also won the honour last year.



The Director presenting the
KM Baird Trophy to Lt Col G Windsor



Col GR Covey presenting
his trophy to Capt JFA Marcil

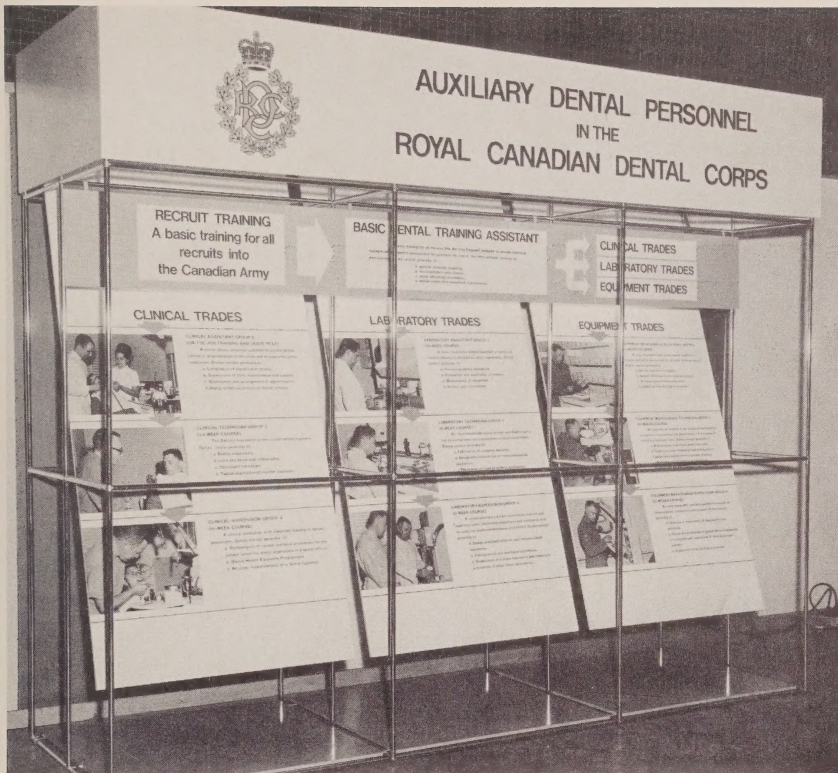
The KM Baird Trophy, presented for the first time, to the player with the low gross for 36 holes Medal Play was won by Lt Col George Windsor from Camp Petawawa, with a score of 161.

The GR Covey Trophy (also presented for the first time) to the player with the low gross for 18 holes Medal Play was won by Capt JFA Marcil from CMR, St Jean, Que, with a score of 81.

The low net winner for 36 holes Medal Play was Maj Gerry Bisailon from Camp Petawawa.

There were several other participants who scored well; and then too there were those who played a good game - despite those misleading figures on score-cards. Both groups of necessity must be left unnamed.

On the final evening, a dinner was held in the CFMSTC Sergeants' Mess after which trophy awards were made and novelty prizes presented.



The new RCDC Exhibit was displayed for the first time at the Montreal Dental Club Convention 25-27 Oct 65.

Directorate

Colonel Millar Retires

Colonel IAL Millar CD, DDS, QHDS, FICD, Deputy Director General of Dental Services for the Canadian Forces since June 1963 commenced retirement leave 8 September 1965. Colonel Millar joined the Corps in 1939. Following his overseas service in the United Kingdom and Northwest Europe (which included participation in the D Day landings 6 June 1944) he returned to Canada September 1945 and subsequently enrolled in the CA(R). Appointments held by Colonel Millar include: Instructor and later Commandant RCDC School, Senior Specialist 13 Dent Coy, CO of 27 Fd Dent Unit, CO of 11 Dent Coy and CDO Western Command. During his military career Colonel Millar has been awarded the Canadian Forces Decoration and has held the appointment of Queen's Honorary Dental Surgeon. He is a Fellow of the International College of Dentists. Colonel Millar is married and has a son and daughter. He has now been appointed Chief Dental Officer for the Ottawa Public School Board. An informal gathering of RCDC officers and wives was held in September at the Army Mess in Ottawa to bid farewell to Colonel and Mrs Millar at which time presentations were made by Brigadier KM Baird.

New Deputy Director General of Dental Services

Colonel BP Kearney in September 1965 was appointed Deputy Director General of Dental Services for the Canadian Forces. In May 1940 Colonel Kearney was commissioned in the Canadian Dental Corps. He served overseas for three years in the United Kingdom and Northwest Europe until his return to Canada in September 1945. Following his return he enrolled in the CA(R). He has served in various locations in Canada and appointments held include: Instructor at the RCDC School, CO of 25 FDU Korea, Senior Specialist in 13 Dent Coy, Commandant RCDC School, CO of 11 Dent Coy and CDO Western Command. During his military career Colonel Kearney has been awarded Member of the British Empire, the Canadian Forces Decoration and the Parachutist Wing. He is a Fellow of the International College of Dentists. Colonel Kearney has been an active participant in sports, particularly baseball, curling, fishing and golf. He is married and has three children.

Directorate Officer Promoted

Lt Col LG Craigie has been promoted to the rank of Colonel and appointed Senior Consultant for the RCDC.

Capt Evans Retires

Capt Doug Evans will be retiring shortly from the RCDC after 25 years of continuous service in the RCDC. He was commissioned in 1951 and since then has served at the RCDC School, in Korea, France and immediately prior to retirement at the Directorate. A farewell party in his honour was held at the RCAF Station Uplands Officers' Mess. We wish him well in his new civilian appointment as Administrative Assistant to the Dean of the Faculty of Dentistry, Toronto. He and his family will be residing in Scarborough.

11 Dent Coy

Special Events

A farewell party for Sgt Moore and Cpl Bowness was held on 27 August in the Corporals' Lounge, Griesbach Barracks. The occasion was prompted by Sgt Moore's forth coming retirement and Cpl Bowness's posting to Borden and OCP.

Sports

Sgt A Schuh visted Hinton, Alberta, while on leave and attended Derby Days. He entered the Black Powder Shoot and won most of the prizes including the Grand Aggregate Trophy.

L/Sgt Shergold and Sgt Gilbert were on the golf teams representing Alberta and BC areas respectively in the Western Command Golf Tournament held in Winnipeg recently. L/Sgt Shergold was a member of the winning team.

Maj Sivell attended the Third Annual RCDC Golf Tournament as the only representative from No 11 Coy. He had the distinction of being the player who travelled farthest to attend the tournament.



Clinic Staff

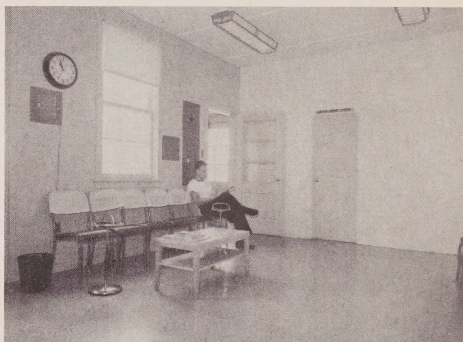
L-R Front:

Miss MJ Warnock,
Dr. GE Shragge,
Maj SW Muller,
Lt Col LR Pierce,
Capt MB Kricken &
Mrs D Howson.

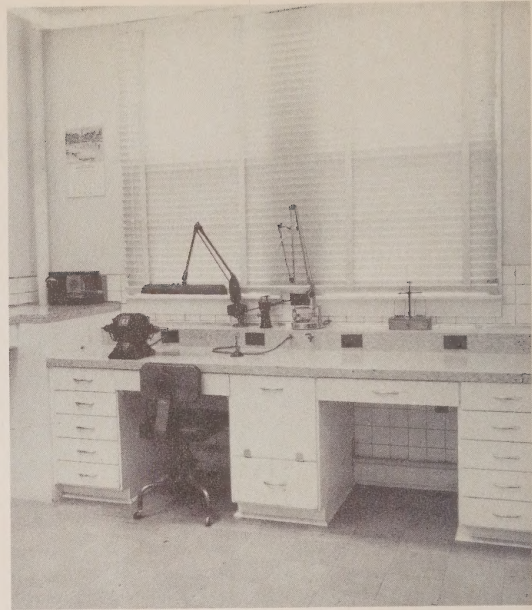
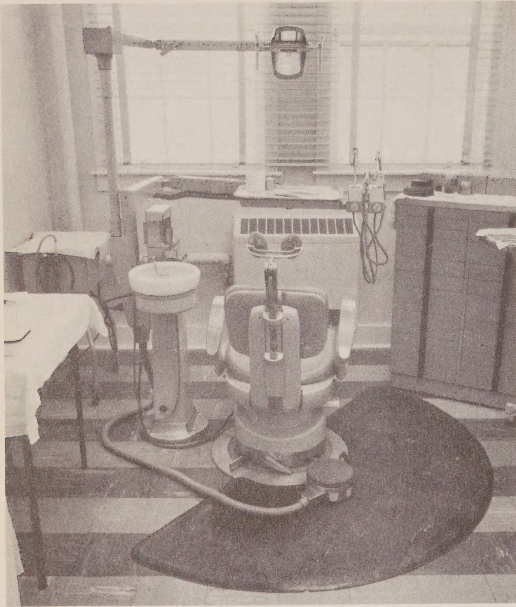
L-R Rear:

Ssgt Lowery RJ,
WO2 PL Gourlay,
Sgt GF McKay,
WO1 AJ Greco,
WO2 Johnston C,
Pte NB Sharp,
Pte F Bosch &
WO2 McMichael W.

Members of the RCDC who have served post-war in No 8 Clinic, HMCS Naden, will be pleased to learn that it has been expanded into a 10-chair clinic and completely re-finished. The renovated clinic was ready for occupancy in April. As will be noted from the photos, the laboratory is particularly spacious, easily accommodating four technicians. The lone patient in the waiting room is not indicative of the treatment volume at Naden.



12 Dent Coy



Views of one of the operatories and the laboratory in No 5 Dental Clinic, RCAF Station, Summerside.

A spacious new clinic was opened at RCAF Station, Summerside earlier this year. The clinic occupies a wing of the station hospital and consists of four operatories, a recovery room, X-ray room, laboratory and waiting room. The clinic OIC, Maj McMaster, happily reports that two new units have recently been installed.

Duty Trips and Visits

Capt JR Robertson was despatched on TD to St John's Nfld to present a table clinic at the Atlantic Provinces Dental Convention from 11-14 Aug. The subject of the table clinic was The Restoration of Fractured Anteriors (Incisal Angle) using metal pins or wire and acrylie material.

Special Events

On 5 Jul the 2nd Phase RCDC Cadets visited HMCS Cornwallis. They were taken on a tour of the local places of interest including Fort Anne and the Habitation at Port Royal. They attended a Navy Mess dinner that evening.

Sports

Ssgt RF Matheson and Cpl JAL Boulianne were members of the winning team in the HMCS Cornwallis softball league.

Maj George Crossman competed in the annual Cornwallis Greenwood Invitational Golf Tournament winning low net 1st division.

13 Dent Coy

Anniversary Celebrations

The 50th Anniversary of the RCDC was celebrated in Western Ontario Area by an all-ranks mixed party which included RCDC (Regular and Retired), Militia and civilian personnel.



The festivities started with a cocktail party at Lt Col Windsor's home. The group then proceeded to the "Friar's Cellar", a local night club where the entertainment included dancing and the usual refreshments, followed by a buffet and huge birthday cake complete with candles honouring the RCDC.

Although a very informal evening was planned, some speeches were inevitable. Col HL Harris (Retired) and Col CE Strachan (Retired) officiated at the cake cutting ceremony and later Col Harris spoke on the history of the Corps.

Special Events

Capt JW Lincoln retired from the RCDC in Jul 65 after some 25 years of service, the last 10 of which were served in this unit's central laboratory in Trenton. A social gathering of Unit personnel and their wives was held to mark this occasion and to tender best wishes for the future. Mrs Lincoln was presented with a bouquet of roses and Capt Lincoln an engraved silver tray. The Lincolns are residing in Trenton.

Sports

No 3 Clinic, Camp Petawawa, has always had a keen group of curlers. Recently Lt Col GE Windsor was elected President of the Camp Petawawa Curling Club and WO2 JA Fraser Drawmaster.

14 Dent Coy

Sports

S Ssgt Taylor won a number of first and second prizes in the Senior Events of the Manitoba Water Skiing Championships. During Rehab Leave he conducted a junior training school in water skiing at Lac Du Bonnet during the month of July.

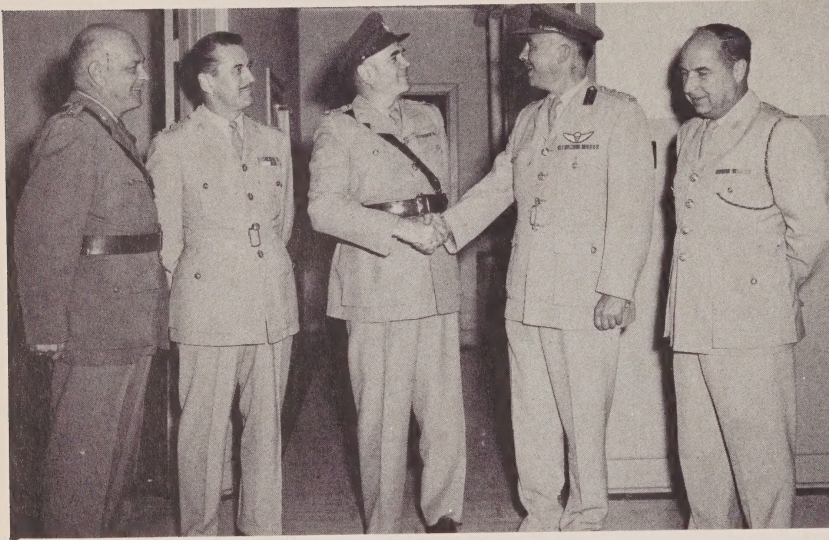
Capt Lionel Jacob participated in the Manitoba Area Golf Tournament in Clear Lake 11-12 Sep 65 and was a member of the winning team.

Cpts Jacob, Armstrong and Mori participated in the RCDC Annual Golf Tournament in Camp Borden. It is rumoured that No 14 Coy was a bit off par.

15 Dent Coy

Change of Command

On 13 Jul 65 Col RB Jackson handed over 15 Coy RCDC to Lt Col CM Cornish who became Command Dental Officer Quebec Command.



Left to Right:
Capt Jacob
Capt Gareau
Lt Col Cornish
Col Jackson
Lt Col Charman

Special Events

A Farewell Party for the outgoing CO, Col RB Jackson, was held at RCAF Station St Jean on 2 Jul 65. Lt Col FD Charman presented the guest of honour with a going away gift on behalf of the personnel of 15 Coy.

Sports

Lt Col FD Charman, Maj HP Guevremont, Capt JF Marcil and Ssgt LG Brown represented No 15 Coy at the Annual RCDC Golf Tournament. Capt Marcil is to be congratulated for winning the GR Covey Trophy. 15 Coy wish to issue a warning to the other companies for keen competition next year.

1 Dent Det

Sports

Major Bill Carter continues to make news in this issue - in that he has joined the "hole-in-one club". The time - 23 Aug, the place - 15th hole of the Gatineau Golf Club, the occasion - the CFHQ Tournament.

4 Fd Dent Coy

Conferences

Lt Col Richardson and Maj Eaden attended an Oral Surgery Course conducted by Colonel RB Shira at the US Army General Hospital, Landstuhl, Germany.

Unit Officers conducted a seminar in which they considered the role of the dental officer as it relates to the role of 4 CIBG units in the field. Each officer reviewed the role and activities of the unit to which he is attached and how they affect his dental responsibility to the unit.

Sports

4 Fd Dent Coy held a unit sports event in the Soltan training area. Maj Begin retained the Horseshoe Championship by defeating Pte Moore. The men defeated the officers in the finals of the Volleyball Tournament.

Lt Col Richardson was appointed Vice-President of the Fort York Curling Club and Ssgt Sullivan the Treasurer.

35 Fd Dent Unit

Courses and Seminars

Maj WK Dickie and Lt Col JC Brick attended a three day series of lectures on Oral Surgery at Landstuhl, Germany and Orleans, France respectively. The invitation to attend was extended to all RCDC Officers by Col RB Shira, Dental Surgeon, US Army, Europe.

Lt Col JC Brick attended a Senior Officer Management Symposium held at No 4 (F) Wing, Baden-Soellingen, for 2 days during August.

Sports

FS "Gussie" Torrens, Dent Tech Clin, was a member of the winning doubles team in the Air Div Tennis Tournament.

Lt Col Brick and Capt Van Ryssel participated in an Air Div Golf Tournament held on 29 Sep at the Luxembourg Golf Club.

Cpl Wadden and Sgt Jennings participated in a Cpl and Sgts Golf Tournament held on 6 Oct at the Cherisey Golf Club. Word has been received that both of these NCOs won prizes.

CBU (UNEF)

Sports

A farewell party and sports afternoon with presentation of appropriate plaque was held 28 Aug for Capt Charron on completion of his year in the Sinai.

Sgt Beattie as a member of the Canadian Contingent Rifle Team participated in the UNEF Rifle Team Championships.

Cpts Chernesky and Nattress placed eighth in the Individual standings for the UNEF Bridge Championship.

Sgt Raymond was on the winning team from the Camp Rafah Bedouin Golf and Country Club in a home and home match tournament for UNEF.

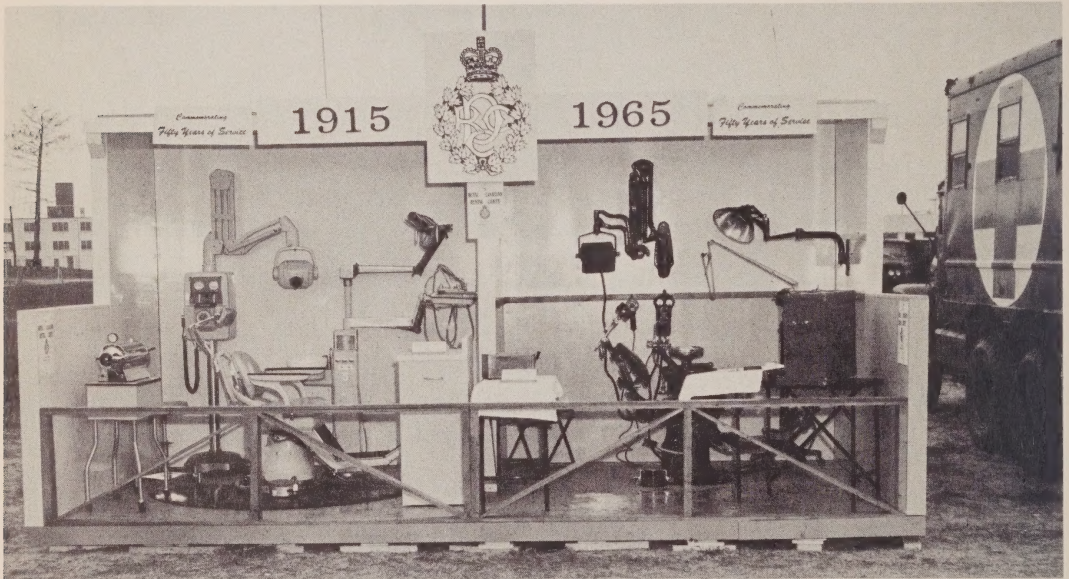
CCUNCYP

Leave

Capt Wade spent 8 days of his leave on an African Safari with other UN soldiers. The tour included visits to Cairo, Nairobi and Addis Ababa, with stopovers in Khartoum and Bijouti. The highlight of the tour was the excursion to the Ambosei National Park on the border of Kenya and Tanganyika, with Mt Kilmanjaro in the distance. Many hours were spent big game hunting with a 35 mm camera.

1 Dent Eqpt Dep

Anniversary Celebrations



This display showing today's modern static clinic equipment (left) and field equipment (right) was prepared by 1 Dent Eqpt Dep for the Corps anniversary and Camp Petawawa Diamond Jubilee Day.

Special Events

Personnel of No 1 Dent Eqpt Dep participated in a garrison parade held on 7 September to honour Lt Gen G Walsh, Vice Chief of the Defence Staff, on his retirement.

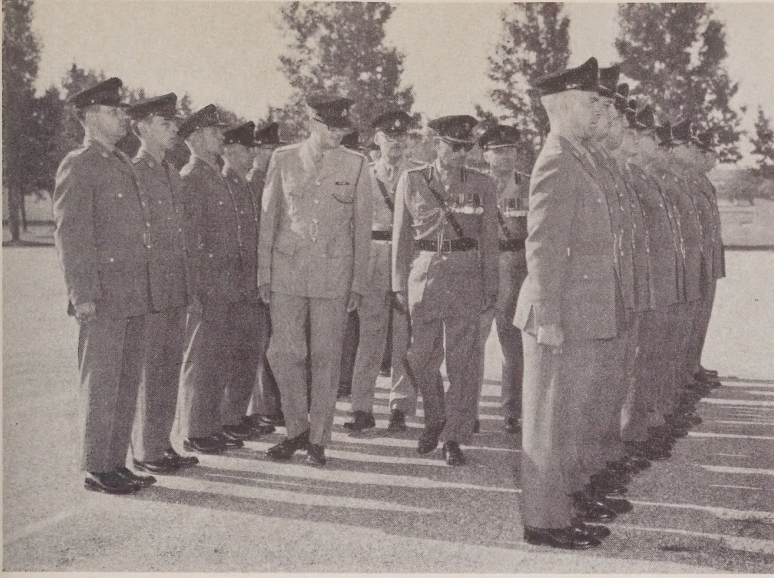
Sports

Ssgt Palmer and Cpl Hall were on the soft ball team that won the Camp Petawawa Soft Ball League this year.

Duty Trips

Lt EA Church proceeded on temporary duty on 8 Oct to inspect and repair dental equipment for the Dental Detachment at Camp Rafah, Canadian Base Units Middle East.

RCDC School



Brigadier KM Baird
inspecting Second
Phase Candidates

Recent Changes in Appointments at the RCDC School

Lt Col JW Turner appointed Senior Clinician, Treatment Wing.
Lt Col DH Protheroe appointed Chief Instructor.

Retirement

Lt Col RE Brown proceeded to 6 PD Toronto on retirement on 30 Sep 65, after 23 years of service. On 28 Sep the other ranks on staff at the RCDC School presented him with a suitably engraved gift, and that same evening, all RCDC staff and course officers "dined him out" at a special dinner in the CFM and DS Officers' Mess. Lt Col Brown and his family will settle in London, Ont.

Sports

On 17 Sep the "Tuffy Tieman Trophy" Golf Tournament was held at Camp Borden for all RCDC and Medical personnel of Ont who wished to compete. The RCDC(S) team with Lt Col Protheroe, Capt Cartwright, WO 1 Batten and Cpl Walker won the Trophy by 30 strokes less than their closest opponents.



Capt Charlie Loken joined the illustrious "hole-in-one club" during late June. The place - 2nd hole of the Camp Borden Army Course. His witness - Sgt GE McGunigal of Camp Shilo. He is shown receiving his award from T Booth, Players Representative from Barrie.

Professional Training

University of Michigan - Ann Arbor, Michigan - Maj C Brown - Complete Denture Prosthesis - 13 Sep-24 Sep 65. Maj JJ Walker - Crown and Bridge Prosthesis - 13 Sep-24 Sep 65.

University of Toronto - Toronto , Ontario - Maj JVP Chatwin - Dental Public Health - Sep 65-Jun 66.

The Doctors Hospital - Toronto, Ontario - Lt Col WR Thompson - Oral Surgery - 1 Jul-31 Aug 65. Maj AG Andrews - Oral Surgery - 25 Oct 65-10 Jan 66.

US Naval Dental School - Bethesda, Maryland - Lt Col LR Pierce - Periodontics - 27 Sep-12 Nov 65. Maj JLM Masse - Removable Partial Dentures - 4 Oct-8 Oct 65. Capt L Dombowsky - Oral Pathology - 18 Oct-22 Oct 65.

Walter Reed Army Medical Centre - Washington, DC - Maj AG Taylor - Advanced Theory and Science of Dental Practice - 19 Aug 65-17 Jun 66.

ENT Air Force Base Colorado Springs - Colorado, USA - Maj HK Meisner - Oral Surgery - 18 Oct-29 Oct 65.

RCDC School - Camp Borden, Ontario - Capt-Major Qualifying Course - 13 Sep-22 Oct 65 - Cpts NH Andrews, MN Deyette, JFA Marcil, NA McFarlane, WE Russell.

Training

RCDC School - Camp Borden -DT Lab Gp 1 Course - 30 Aug-17 Dec 65 - Cpls RS Black, CS Brown, AM Burns, CSB Heather, WD Horne, ZWJ Mitrikas, AH Peck, JM White, PD Whynott, Ptes GN Challenger, JD Cormie, JR Ritchie.

No 1 Dent Eqpt Dep - Camp Petawawa, Ontario - DET Gp 1 Course 7 Sep-26 Nov 65 - Cpls JAL Boulianne, NL Highfield, Ptes LA Russell, JLA Violette.

Senior NCO Qualifying Course - 14 Sep-5 Nov 65 - A/Sgt RB Johnson, Cpls TJ Deloughery, BA Green, MJ Hall, HC King, RW McDonald, HJ McKinnon, RA Neill, A Pink, JW Shore.

Training with Industry - Ticonium Div, CMP Industries Incorp - Albany, NY - 20-24 Sep 65 - WO2 JW Hutchinson, Ssgt RG Hopkins, Cpl EA Duve. Ritter Trg School, Rochester, NY - 18-29 Oct 65 - WO2 MF Conkey. SS White Co., Staten Island, NY - 27 Sep-1 Oct 65 - WO2 WD Morris, WO2 EMB Everett, Sgt SD Posyluzny.

Promotions

To Col - LG Craigie, CM Cornish; To Lt Col - WH Carter, JM Smith; To Maj - EW Gazo, PP Morin; To Capt. - CH Loken; To Lt - EM Lobb.
To WO1 - DD Robertson; To WO2 - CA Young, MF Conkey, RG Stewart, JW Hutchinson, EMB Everett, FM Kennedy; To Ssgt - KE Laurence, RH Palmer, TH Southin, A Bourgeois.

GP Ryder, GF Keogh, GH Storms, HC Kirby, JE Raymond, JF Marchand, RJ Goodwin, DB Wood; To Sgt - ADT Gardner, RB Johnson, JC Bleakney.

Retirements and Releases

Col IAL Millar; Lt Col RE Brown; Capts - JW Lincoln, BG Johnston, RL Moran, JH Quackenbush; WO2 - JR Card; Sgts - JM Moore, AF Semple, KC Vrooman; Ptes - JP Pitchford, JR Powell, LE Wannamaker; Airwomen - Cpls MR Matlock, KP Palmer; LAWs - BD Lavigne, LJ Olson; Civilians - Miss BR McLean, Mrs MFC Papps, Mrs A Ruffo, Mrs AN Turner, Miss IM White.

Welcome to the Corps

Ptes - JG Bernier, JFGP Boulanger, IA Braslins, E Charlebois, HKK Gapmann, A Jack, TRJ Kukurudziak, JGJ Labrosse, RG O'Dell, DW Roy, JYLN Vachon, RF Vance, JA Wesley. Miss C Gareau, Mrs R Hill, Miss C Hillier, Miss CM Van Tassell.

Vital Statistics

Births

Son - Maj & Mrs JLY Cyrenne; Cpl & Mrs DJ Davies; Cpl & Mrs TJ Deloughery; Capt & Mrs JP Grise; Sgt & Mrs J Hossdorf; Capt & Mrs DG Jones.

Daughter - Ssgt & Mrs A Bourgeois; Maj & Mrs PP Morin; Capt & Mrs JA Pigeon; Capt & Mrs GS Zwicker.

Marriages

Capt RB Andrews to April Anne Belik; Cpl DW Griffiths to Faye Dianne Thompson; Cpl H McRae to Jeanette Ann Jenks; Cpl OW Mandrusiak to Monica Teresa Shoemaker; Pte MG Olinik to Joan Bernice Barrett Moore; Cpl TR O'Mara to Andree Francoise LeBlanc; Pte JR Ritchie to Margaretha Tremp; Capt TC Tervit to Lynda Lois Bushell; Capt Z Tukums to Margaret Schwager.

Deaths

Major JC Duff (Retired) 4 Sep 65. Deepest sympathies are extended to Col Cornish whose parents died within a two week period in mid-September.

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TORONTO 2

The

ROYAL CANADIAN DENTAL CORPS

Quarterly

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Lt Col G MacDougall
Major WH Harrington

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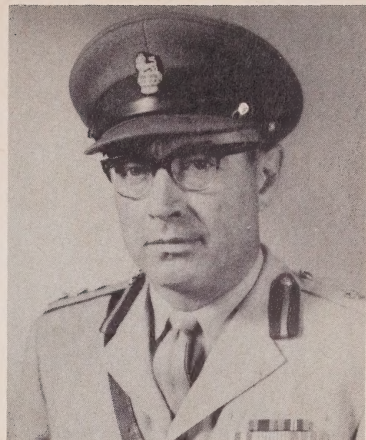
Director General of Dental Services
for the Canadian Forces,
Canadian Forces Headquarters,
Ottawa 4, Ontario.

Cover Photograph

Familiar scene to those who have served with 4 Fd Dent
Coy - the pond and Wiesenkirche, Soest, Germany

4 FD DENT COY
ROYAL CANADIAN DENTAL CORPS

Col Garth C. Evans, CD, DDS



Col G.C. Evans

BACKGROUND

The need to create a force capable of withstanding the armed might of Russia in Central Europe was recognized by the formation of a defensive alliance with nations in Europe and North America known as the North Atlantic Treaty Organization, on 4 Apr 49.

In accordance with the NATO agreement, the formation of an Infantry Brigade for service in Europe was announced by the Minister of National Defence on 4 May 51. Recruiting for the Brigade began within three days of its authorization. Infantry personnel were raised from fifteen Militia regiments across Canada, with each battalion supplying two companies, while the supporting arms and services were chiefly from existing Regular Force units.

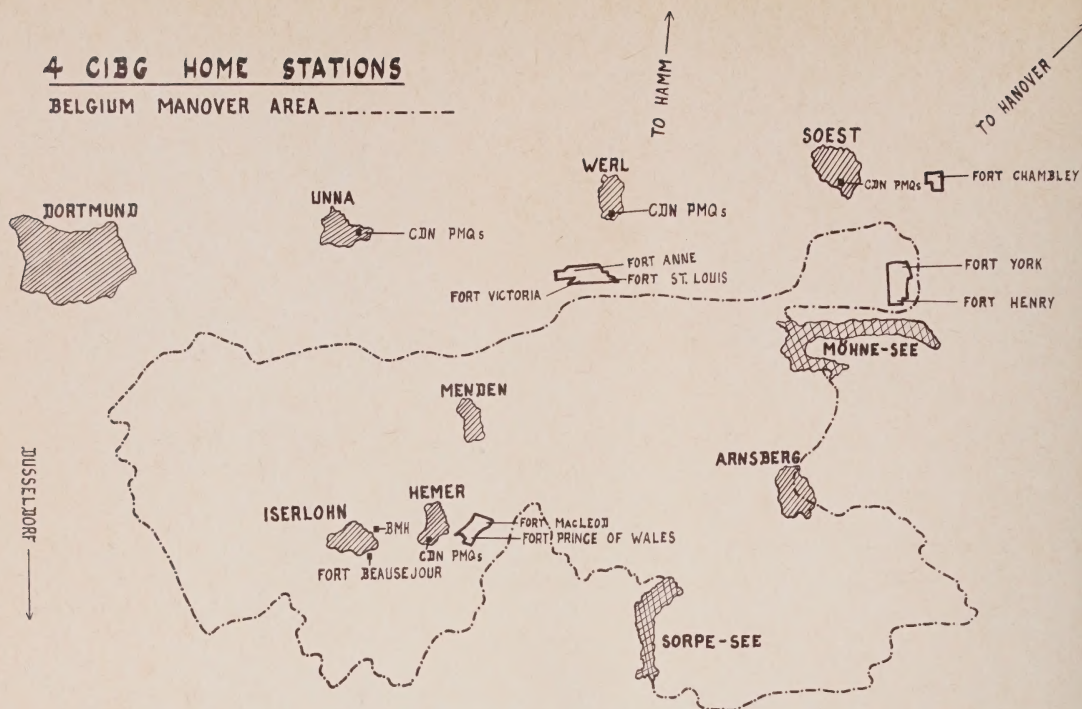
27 Canadian Infantry Brigade concentrated in Camp Valcartier for initial training. The advance party left for Germany on 15 Oct 51, followed by the main body in December. It was Canada's wish that the Brigade be deployed with United Kingdom forces. Accordingly, it moved into Hanover in the British Zone, occupying former German military barracks on the outskirts of town. Accommodation was limited and it was necessary for the Field Regiment RCA and the Field Squadron RCE to locate at Hohn and Hameln respectively. The Brigade remained in the Hanover area for two years, carrying out exercises and other assigned tasks.

When it was decided to maintain a Canadian Brigade Group in Germany indefinitely, suitable accommodation was built in the Soest area of Westphalia. 27 Brigade was reduced to nil strength on 7 Dec 53 and reconstituted as 1 Canadian Infantry Brigade Group, occupying the nine newly-constructed campsites at Soest, Werl and Hemer. (see map)

Personnel of 1 CIBG served in Europe until the entire Brigade was replaced by 2 CIBG in 1955. 2 CIBG was in turn replaced by 4 CIBG in November 1957. The wisdom of rotating the complete Brigade every two years was re-examined by the Canadian Government and it was decided that 4 CIBG would remain in Europe and major units only would rotate as a group, all other personnel being interchanged on a man-for-man basis. In addition, the period of service in Europe was extended to three years, as it is today.

4 CIBG HOME STATIONS

BELGIUM MANOVR AREA -----



RDC PARTICIPATION IN THE BRIGADE

ADMINISTRATION

The requirement for an adequate Brigade dental service was recognized by formation of 27 Fd Dent Det on 1 Sep 1951. An establishment of sufficient size was provided at the outset, thus eliminating the "growth by necessity" as was the case with 25 Fd Dent Unit in Korea. Maj WI Whitehead was appointed Commanding Officer and Capt BJH Marchant Adjutant and Quartermaster. The bulk of the unit was concentrated and equipped at Valcartier and despatched overseas on 8 Dec. Headquarters was set up in London and Edinburgh Barracks, Hanover, on 18 Dec 51. On the 10th of January 1952 the detachment was redesignated 27 Fd Dent Unit because the Director General of Dental Services felt this title would more accurately describe the formation.

Dental personnel rotated each year until 27 Fd Dent Unit was reduced to nil strength on 7 Dec 53, when 1 Fd Dent Unit arrived from Canada and assumed the responsibility for dental service for 1 CIBG with HQ near Soest on the Mohne-See. The grey shield of 27 Bde was replaced by the red divisional patch of 1 CIBG.

1 Fd Dent Unit provided dental support to 1 CIBG and 2 CIBG from Dec 53 until Nov 57 when it was decided that the armoured support to the Brigade would be increased from a squadron to a regiment of tanks. To accomplish this armoured increase and at the same time reduce the manpower ceiling in Europe to 5500, various units suffered a cut in establishment. 1 Fd Dent Unit was reduced by four dental sub-sections and became a non-self accounting unit. Five sub-sections were attached for all purposes, on detachment posting to major units of the Brigade, and the Commanding Officer with a reduced staff, was attached to

the Transport Company based at Fort Chambly. On 15 May 58 the unit was redesignated 4 Fd Dent Coy, in line with its role of providing dental treatment to 4 CIBG on a more or less permanent basis.

It soon became apparent that six sub-sections could not cope with the dental treatment requirements of the 5500 man brigade. After several petitions to Army Headquarters, an additional dental officer, assistant and laboratory technician were authorized, raising the total to seven sub-sections effective 1 Dec 60. Concern over the erection of the Berlin wall in 1961 resulted in the Canadian Government lifting the man-power restrictions on 4 CIBG. During Oct 61 one more dental officer and assistant were dispatched overseas bringing 4 Fd Dent Coy up to today's strength of eight sub-sections.

PERSONNEL

At the conclusion of this article is a list of officers and men who have served with the dental component of the Infantry Brigade in North West Europe since 1951.

ACCOMMODATION AND EQUIPMENT

The dental sub-sections of 27 Fd Dent Det were equipped with the wartime 20 cwt dental lorry and the full range of field kits. Early in 1952 additions were made in the form of electric dental engines and pedestal cuspidors from British resources. Originally it was intended that all consumable dental supplies would be provided by the UK under the terms of the capitation agreement but the unfamiliar scales of issue and range of British supplies made it necessary to indent on 1 Dent Equipment Depot in Canada for most items in common use by the RCDC. Eventually a scale was authorized for the Fd Coy in Europe and regular shipments were forwarded from Canada. This supply system continues to be used today.



RCDC Officers

27 Brigade

Hanover, 1952

The old wartime dental lorries were a constant problem. Spare parts were difficult to find because this vehicle was being rapidly phased out of the Regular force. It was not until 15 Jul 59 that eight new 2½ ton shop-vans, complete with dental operating kit, were received. The arrival of these vehicles made it possible for the unit to participate in all schemes and exercises for the first time without fear of mechanical failures.

From the earliest days in Hanover it became apparent that in addition to using the mobile clinics during training exercises static clinics should be developed in the base camps. This was done in all instances. The following is a direct quote from Monthly Progress Report, February 1952-"Capt IG Craigie's sub-section moved into new accommodation at Hohne. This is a newly-decorated building occupied jointly by the Canadian and British Medical Corps. It is, up to this date, the most satisfactory accommodation we have been able to acquire. There is sufficient room for a second operator in this clinic, as well as a laboratory and dark room. An X-Ray machine and transformer are installed and ready for use."

Advanced planning has included clinic accommodation in conjunction with all medical inspection rooms (MIRs) in the Soest Camps, thus 1 Fd Dent Unit was able to move directly into permanent accommodation upon arrival. HQ was located in a specially-designed building in Fort Chambly that housed the QM section and a three-chair clinic. Over the years the clinics have been modified, the floors tiled and generally improved until today all accommodation in the Brigade area compares favourably with any in Canada.

In April 61, HQ and the stores section were relocated in a more satisfactory building near Brigade HQ at Fort Henry. At the same time the clinic at Fort Anne was closed and the dental sub-section reassigned to a new one-chair clinic in Fort Beausejour on the outskirts of Iserlohn. January 1965 saw the completion of an enlarged two-chair clinic at Fort St Louis, with sufficient facilities to provide for the troops from the three camps in the Werl area.

MILITARY TRAINING

Formal training in the early days of the unit was confined chiefly to convoy discipline and familiarization with the various areas of the Brigade responsibility. During the years 1953 to 1955 the pace of unit training was stepped up considerably. Under the guiding hand of Lt-Col TL Marsh and Major EC Purdy, 1 Fd Dent Unit moved into the field at regular intervals practising road movement by day and by night, camp siting, map and compass using, camouflage etc. The highlight of this period was probably Exercise Gemini 1 which was a combined exercise and training program for 35 Field Dent Unit, Metz, and 1 Fd Dent Unit from 3 to 9 Mar 55.



1 Field Dental Unit - 1954

When the Unit was changed to a non-self accounting organization, without cooks, carpenters or a transport section, independent schemes were not possible. Since 1957 unit training has consisted of as many sub-sections as feasible accompanying the unit to which they are attached on all Brigade schemes and exercises. HQ of the Dental Coy now moves with and is an integral part of Brigade HQ.

PROFESSIONAL TRAINING

Although one of the main objectives of service in 4 Fd Dent Coy is training and preparing RCDC personnel for war, the professional aspects of a dental officer's education are not neglected. The annual meeting of the Fédération Dentaire Internationale is often held within the bounds of continental Europe and over the years many RCDC officers of 4 Fd Dent Coy have taken this opportunity to attend. The annual USAFE - USAREUR Dental Conference at Garmisch-Partenkirchen is considered to be one of the finest professional meetings in the World. It has become traditional that half of the officers of 4 Fd Dent Coy attend each year, thus each is able to attend at least one meeting during his three-year tour. Because of the proximity and ease of travel to the UK several officers of the Unit have been enrolled in the General Oral and Dental Surgery Courses at the Royal College of Dental Surgeons in London England.

In the fall of 1962, through the persistent efforts of Major JVP Chatwin, the officers of 4 Fd began sponsoring monthly professional meetings. At first these meetings included RCDC officers and a few neighbouring RADC officers. Latest reports from the CO of 4 Fd indicate that these meetings are very successful. The attendance for the January 65 meeting was 7 RCDC, 15 RADC and 2 US Army DC.



RCDC, RADC and US Army DC officers attending the
monthly professional meeting - Sennelager - Jun 64

LIFE WITH THE BRIGADE IN GERMANY

Completely furnished married quarters are provided in four locations in the Brigade area, in about the same ratio to married personnel as in Camp Borden. Every married soldier cannot be provided with a PMQ and a considerable number of families live "on the economy" where rents are cheaper than in Canada. They have an excellent opportunity to learn the language and customs of the country.

The Brigade leave policy is unique in that forty-five days leave is granted annually. The year is divided into three periods of four months, and fifteen days' leave is taken in each period. A maximum of eight days travelling time may be granted in conjunction with any one leave period depending on the destination of the tour contemplated. Holland, France, Belgium, Southern Germany, Spain and England are among the favourite countries. Hotel accommodation, particularly in Germany, Holland and Denmark is cheap and clean and the food is excellent. Travelling in Europe is cheaper than in Canada but it can be expensive if family tastes are luxurious.

In closing, we would like to add that a tour with the Brigade in Germany can be most rewarding and most interesting. If personnel assigned to 4 Fd Dent Coy will keep an open mind and try to appreciate the fact that Europe is not Canada and the the European approach to life even though it be different is not necessarily backward, their three-year tour will be most gratifying and certainly the highlight of their service career.



The old mill-wheel - a landmark in Soest

List of officers and men who served with the dental component of the Infantry Brigade in North West Europe since 1951. The rank shown is that held at the time of appointment while the year indicates when personnel were taken on strength.

Commanding Officers

Maj	WI	Whitehead	1951	27 Fd Dent Unit
Lt-Col	IAL	Millar	1952	27 Fd Dent Unit
Lt-Col	TL	Marsh	1953-54	1 Fd Dent Unit
Lt-Col	OW	Crummey	1955-57	1 Fd Dent Unit
Lt-Col	RHG	Cunningham	1957-60	4 Fd Dent Coy
Lt-Col	GC	Evans	1960-63	4 Fd Dent Coy
Lt-Col	G	MacDougall	1963-65	4 Fd Dent Coy
Lt-Col	LA	Richardson	1965	

Adjutant and Quartermaster

Capt	BJH	Marchant
Lt	BK	Wansbrough
Lt	E	Clark
Capt	CA	Casterton

RCDC OFFICERS AND MEN

1951

Maj	J	Durand	WO2	McMichael	W	Sgt	Mazerall	EE
Capt	FD	Charman	Sgt	Couture	GH	Sgt	Weir	WB
Capt	HL	Chartrand	Sgt	Fraser	FFA	Cpl	Paquette	T
Capt	LG	Craigie	Sgt	Fraser	SG	Pte	Adams	CH
Capt	JE	Hughson	Sgt	Gibson	GL	Pte	Finlan	H
Capt	G	MacDougall	Sgt	Greco	AJ	Pte	Jollimore	GD
Capt	JAA	Patenaude	Sgt	Hobart	FH	Pte	Jones	RK
Capt	LE	Richardson	Sgt	Jackson	TM	Pte	Sullivan	TW
Capt	GE	Windsor	Sgt	Laurence	KE	Pte	Therrien	JCA
						Pte	Thorsson	H

1952

Maj	NA	Butcher	Capt	JM	Smith	Sgt	McKay	GF
Maj	RE	Dyer	WO2	Hall	RWM	Sgt	Pushman	RS
Capt	WH	Carter	Sgt	Blackmore	VO	Cpl	Abernethy	EK
Capt	MC	Cole	Sgt	Desjardins	C	Cpl	MacDow	CE
Capt	JE	Graff	Sgt	Egan	PAA	Cpl	Martell	FL
Capt	JA	Lauziere	Sgt	Kennedy	FM	Pte	Parker	WT
Capt	EJ	McNiece	Sgt	McHugh	RD	Pte	Tapp	JM

1953

Maj	DH	Hillier	WO2	Champoux	JM	Cpl	Petersen	NC
Maj	EC	Purdy	Sgt	Drouin	G	Cpl	Savoie	JR
Maj	JW	Turner	Sgt	Highgason	WR	Cpl	Thompson	HA
Capt	GJD	Belanger	Sgt	Jerome	AMC	Cpl	Waring	J
Capt	PH	Guevermont	Cpl	Ledoux		Pte	Snutch	H
Capt	JW	Jolly	Cpl	Libby	GKW			
Capt	JGS	MacIntosh	Cpl	Murley	DT			
Capt	SW	Muller	Cpl	Noglin	HH			

1954

Capt	DJ	Carmichael	Sgt	Laverty	JH	Cpl	Field	AS
			Sgt	Malpas	RA	Cpl	Pasquini	A

1955

Maj	RE	Brown	WO2	Pritchard	AJ	Sgt	Pelletier	R
Maj	CM	Cornish	Ssgt	Heard	JF	Sgt	Piche	DR
Maj	CGB	Grant	Sgt	Claydon	RR	Sgt	Raymond	JE
Maj	EJC	Small	Sgt	D'Avignon	E	Sgt	Ryder	GP
Capt	RG	Darling	Sgt	DeBlois	JR	Sgt	Sherry	JM
Capt	PE	Fafard	Sgt	Kirby	HC	Cpl	Fogg	GL
Capt	J	McGaughey	Sgt	Knoll	ES	Cpl	Morrisette	B
			Sgt	MacDougall	WD	Cpl	Schmalzle	CE

1956

Capt	TD	Cobb	Sgt	Lillico	AD
Capt	JPR	Guay			

1957

Maj	WH	Murray	WO2	Gareau	AM	Sgt	Wallace	KLM
Capt	L	Dombowsky	Ssgt	Jones	JM	Sgt	Wentzell	JS
Capt	J3	Scott	Sgt	Southin	TH	Cpl	Green	AH
			Sgt	Storms	GH	Cpl	Kidd	VR

1958

Capt	GIJ	Bisaillon	Sgt	Palmer	RH	Sgt	Toole	SM
			Sgt	Shields	JAR	Sgt	Vrooman	KC

1959

Maj	DH	Skinner	Sgt	Hill	DF
Capt	GT	Crossman	Cpl	Posyluzny	SD

1960

Maj	C	Brown	WO2	Gourlay	PI	Sgt	Cahill	JR
Capt	LE	Kelly	WO2	Robertson	DD	Sgt	Clarke	JF
			Ssgt	Bennett	WA	Cpl	Kay	JH
						Cpl	Millard	CC

1961

Capt	PJJ	Coulombe	Sgt	D'Eon	DR	Sgt	Shaw	VH
Capt	RH	Headley	Sgt	Fletcher	DLG	Cpl	Lansey	EJ
Capt	DJ	MacPhee	Sgt	MacDonald	MO			

1962

Maj	JVP	Chatwin	Sgt	Hossdorf	J
Capt	WR	Collier	Sgt	Moore	JG
Capt	WF	Shaw	Sgt	Wilkinson	GW

1963

Capt	FC	Arpin	WO2	Riddell	DW	Sgt	Jones	RK
Capt	JF	Eadon	Ssgt	Sullivan	TW	Sgt	Olynk	W
Capt	LA	Reynolds	Sgt	Harmer	WG	Sgt	Tanner	EV
			Sgt	Jewson	CC	Cpl	Loosely	DB

1964

Capt	JF	Begin	Sgt	Libby	GKW
Capt	EW	Gaxo	Cpl	Lambert	JPA
Capt	PP	Morin			

1965

Capt	NA	McFarlane	Ssgt	James	MA	Pte	MacGillivray	HJ
Capt	DR	O'Hara	Sgt	Christiansen	JA	Pte	Mullin	RW
Capt	RJ	Paturel	Sgt	Petersen	NC			
Capt	MD	Taylor	Sgt	Reid	FJ			

ENDODONTICS IN ORAL REHABILITATION

Major H.J. Cashin, BSc, DDS



INTRODUCTION

Full mouth rehabilitation consists of an overall treatment plan which unites all branches of dentistry into a team whose purpose it is to restore the human dentition to normal function. The diagnostic phase of such a plan is an attempt to evaluate all the biological structures and to anticipate how these structures will be benefitted by the reconstruction. It also attempts to secure the serviceability of the reconstruction for the patient by setting up a maintenance program. In the past, the maintenance phase has stressed periodic periodontal service. However, because many unidentified pre-operative pulp problems show up after the case is completed, endodontics must be called upon to take its place not only in the planning stage but also in the maintenance program as well.

Root canal therapy, or endodontics, (to use current terminology) has evolved today as an entity comparable to other services in dentistry. In the last ten or fifteen years there has been strong evidence of a growing interest in the retention of pulpless teeth. This has led to the advancement and refinement of the endodontic techniques which are now in use. Modern day endodontics through the use of periradicular surgery and antibiotic therapy has provided an indispensable adjunct in the approach to oral rehabilitation.

TREATMENT

The pulp is a very important and irreplaceable organ, hence the responsible dentist is obliged to preserve it if possible. Every dentist has faced the problem of deep caries without apparent pulp exposure and has had to decide whether or not to remove the last layer of doubtful dentine, risking pulpal exposure.

The treatment of pulp lesions may be divided into three main categories:

1. Preservation of pulp vitality: (a) pulp capping, (b) pulp curettage, (c) pulpotomy.
2. Removal of living pulp (pulpectomy).
3. Treatment of teeth without living pulp, with or without periapical lesions.

Preservation of Pulp Vitality

When Herrmann introduced calcium hydroxide as a dressing to bring about the healing of the pulp and the formation of a dentine ceiling, the preservation of pulp vitality after exposure was established on a firm basis.¹ Since that time, thousands of teeth with exposed pulps have been restored to normal function. Satisfactory clinical and histological results give this method support biologically.

The three methods of pulp preservation rest on the same basic principles and differ from one another only in the depth of pulp amputation.

In capping there is no attempt to amputate any portion of the pulp. Curretage involves scraping the exposed area of the pulp. Pulpotomy involves amputation of the pulp as far as the entrance to the root canal or canals.

Removal of Living Pulp

Pulpectomy (i.e. complete removal of a normal or pathological vital pulp) constitutes the surest method of treatment of a tooth with a damaged pulp³ and the high percentage of success makes it the preferred method of treatment.

Treatment of Teeth with Non-Vital Pulps

All those cases of teeth requiring endodontic treatment not in the categories already mentioned are grouped under this heading. The treatment of teeth is justified by the satisfactory results obtained by those who adhere to rigid biological and technical principles. The results are in accord with those obtained in any other sphere of dentistry or medicine.²

General Considerations in Complete Mouth Rehabilitation

In full mouth rehabilitation there is an increasing awareness that diagnosis and treatment should be based on the entire occlusion of the teeth of the patient, rather than on the individual tooth defect.

Common to all attempts at rebuilding the occlusion is the preparation of some or all of the teeth to receive cast crowns and inlays. During the course of these preparations it is not uncommon that the pulps of some of these teeth may be jeopardized. Inevitably, therefore, a tooth with actual or potential pulp involvement must assume a critical role in the diagnosis and treatment planning for a mouth in which reconstruction of the occlusion is contemplated.

Mouths requiring complete occlusal reconstruction may be grouped under two main classifications:⁴

1. Those showing periodontal involvement
2. Those in which most or all of the teeth show extensive caries of crown or root or both.

Regardless of the classification, all mouths have teeth which are candidates for endodontic treatment either before, during or after reconstruction procedures are completed.

Before the operative procedures are begun, pulps may be endangered or involved because of deep-seated carious lesions, certain restorative procedures, or erosion. Deep periodontal pockets may cause exposure of lateral canals and cause pulpal inflammation.

During the operative procedures, pulps may be exposed mechanically when extruded teeth are reduced or walls paralleled. Pulps may become inflamed because of the heat produced by rapid cutting technics.

After the reconstruction is completed and the crowns and bridges have been cemented permanently in place, pulps which may have been on the borderline between hyperaemia and pulpitis may suddenly become acutely inflamed. Pulp or periapical involvement may take place months or years after the occlusion has been rebuilt.

Should pulp or periapical involvement occur during the time that the reconstruction is being done, the entire plan of treatment might have to be altered, unless endodontic treatment can be accomplished successfully. After a reconstruction has been completed, a tooth with pulp or periapical involvement which has not been treated successfully by endodontic therapy must be extracted. This causes great embarrassment to the dentist, loss of money, time and needless discomfort to the patient.

It can be readily understood that a knowledge of endodontics and an ability to perform it are as important to the dentist as his technical skill in operative dentistry. Modern day endodontic procedures together with antibiotic and chemotherapeutic agents afford us a safe, efficient and dependable service.

Selection of Teeth for Endodontic Treatment

General Requirements

Several factors govern the selection of teeth for endodontic treatment in full mouth reconstruction.⁴ The requirements for successful endodontic treatment are:

1. The operator must possess the skill and experience to give him confidence that he can treat the tooth successfully, otherwise he should not attempt it.
2. Anatomy - The tooth must be operable. Examine canals by x-ray for extra canals and foramina and curvatures too great to operate.
3. The patient must have a satisfactory health history. Where systemic disease is present repair of periapical tissues takes place slowly or not at all. Patients with chronic debilitating disease are poor risks for root canal therapy.
4. The strategic value of the tooth must be high. The tooth may be very important in the program of reconstruction and maintaining a good oral condition.

Other Requirements⁴

1. The tooth must permit maintenance of asepsis during operative procedures.

There must be sufficient crown structure remaining to permit placement of the rubber dam. In some instances, a temporary banding crown can be placed on the tooth. This will prevent leakage of saliva into the root canal, then treatment has a better chance of success.

2. There must be sufficient periodontal support to maintain the tooth in its alveolus and this must also apply when an apicoectomy is required. The fulcrum of force on the tooth must be so placed as not to contraindicate the use of the tooth as an abutment.
3. The root canal must be mechanically accessible. If for example, the patient cannot open his mouth widely enough to allow introduction of instruments into the canals, it would be impossible to perform successful endodontic treatment.
4. The sterile canals and tubules must be hermetically sealed by agents of known tissue tolerance. This rules out all possible leakage of canals and enhances successful endodontic treatment.
5. A satisfactory restoration must be foreseen, otherwise it is useless to do endodontic treatment.

Retention of Teeth Strategic to Occlusion

Special emphasis should be placed on the importance of treating, with a view towards retaining in situ, certain teeth which are strategically important from the standpoint of maintaining the occlusion.⁴ These teeth are classed as follows:

1. All cuspids - The cuspid is both a strong abutment and an important buttress in maintaining the occlusion. It supports the corner of the mouth and resists the anterior component of force. Even after root resection there is usually enough root structure left to permit the cuspid to function as a firm anchor. Thus, every effort should be made to treat cuspids endodontically if there is evidence of pulp or periapical disease. This applies whether or not a fixed bridge or partial denture is to be constructed.
2. Most distal molar in the arch - The most distal molar, whether it is in the maxilla or the mandible, is of strategic importance. Only if there is a full complement of teeth in the arch can third molars be excluded from this category. The decision whether to construct a fixed bridge or a partial denture will depend on the retention of the most distal molar when there are other missing molars and bicuspid. If other molars have already been lost, the extraction of the distal molar will necessitate the construction of a denture with a free-end saddle. This is to be avoided if possible, for this type of denture is less satisfactory than one in which the saddle area is supported by natural teeth at both ends of the span.
3. Any remaining posterior tooth whose loss would destroy vertical dimension is strategically important. This is especially true of the last remaining posterior tooth on one side which is in contact with an antagonist, thereby maintaining vertical dimension. Retention of this tooth is of even greater importance if a planned change in vertical dimension

is contemplated.

4. When advanced periodontal disease is present and reconstruction is to be instituted, every tooth becomes strategically important. Each additional tooth extraction decreases the periodontal support in an already weakened arch. With continued loss of teeth a point is soon reached where the occlusal reconstruction can no longer be supported; in fact, the abutments become overloaded and are soon lost.

Pulpless Teeth as Abutments

It is the opinion of many dentists that pulpless teeth may be used satisfactorily for bridge abutments.⁶ Tylman⁷ says that "pulpless teeth serve satisfactorily as bridge abutments if the tooth is carefully treated, filled, and kept under periodic surveillance".

Pulpless teeth which are to be used as abutments for bridges or for partial dentures in the posterior arch should have complete occlusal coverage.

A valid reason for questioning the reliability of a treated tooth as an abutment does not exist. Failures usually are due to lack of observance of the basic principles of root canal therapy. If an aseptic technic is maintained, proper debridement of canal done, and root canal sealed hermetically, successful root fillings should result.

One objection to a root-filled tooth is its tendency to fracture. This is more likely to occur than is the fracture of the crown of a tooth with a living pulp. The dentine becomes more brittle once the pulp is removed. Fractures of cusps take place probably because there has been loss of dentine through caries and the enamel is unsupported.

Pulp Capping and Pulpotomy

Mechanical or carious exposures made during crown preparations cause the teeth to be poor risks for pulp capping or pulpotomy because they are invariably contaminated. These procedures are thus contraindicated in occlusal reconstruction. Pulp-capped or pulpotomized teeth of adults are not dependable. The remaining pulp may become inflamed at any time, especially after the irritation involved in crown preparations. Root canal therapy should be completed in advance of occlusal reconstruction.

Correlation of Endodontics with Orthodontics

In full mouth rehabilitation, orthodontic work is often necessary before crown preparations. This lessens the danger of pulpal injury and exposure during paralleling of walls. In full scale orthodontic treatment, endodontics often plays a critical role. Retention of the molars is important since these teeth are used for anchorage. Should the pulps of the molars become inflamed, root canal therapy can be performed with reasonable assurance of success.

If the orthodontic treatment plan dictates its retention, endodontic

therapy can be utilized for any tooth, provided it meets the qualifications already listed. Root-filled teeth can be moved orthodontically with the same assurance as can teeth with living pulps.

CONCLUSION

Endodontic therapy can never be divorced from occlusal reconstruction. Together with periodontal therapy, these procedures open up new by-ways in the never-ending road to preservation of the natural dentition.

Pulp problems have always been the concern of every dentist whether he is treating the mouth for a full rehabilitation or dealing with a single tooth. There has always existed an awareness of pulp reactions to operative procedures and filling materials. There is a need to consider these realities so that inevitable pulp changes are understood and anticipated.

The present status of pulp pathology is that infected teeth can be treated with an excellent prognosis.⁷ What assures success, however, is not one step of a procedure, but adherence to a number of principles involved. A properly treated pulpless tooth or root can provide years of service as an abutment as well as for an individual restoration. This trend in the retention of natural teeth has created a new high in the stature of endodontics.

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DR. COGSWELL'S ORAL SURGERY TRAINING KIT



Major D.H. Skinner

Dental officers of the RCDC are provided with an excellent surgical training aid in the form of the view-master system of stereoscopic photography. This training aid was developed by Dr. W.W. Cogswell and is available on a loan basis from company stores.

The capabilities of three dimension photography realistically portray the author's superbly executed case models. Not only are step by step surgical procedures presented, but also many of the significant cases treated by Dr. Cogswell in his many years of practice and his development of the technique of controlled tooth division. Stereo pairs of slides show roentgenographs of actual case histories, pre-operative planning diagrams and the wax models of each surgical stage.

The four hundred page text accompanying the slides describes the diagnosis, pre-operative planning and major operative steps for fifty-seven common surgical problems of the oral cavity. The slides consist of fourteen hundred stereoscopic views illustrating the fifty-seven surgical procedures, with radiographs and progressive stages of technique.

The kit is divided into two complete sections, one dealing with the maxillary region, the second with the mandibular region. The sections are introduced by a smaller section entitled "Variations in Normal Anatomy of the Head and Neck". In this section Dr. Cogswell demonstrates the two extremes of facial form, the rectangular or tapering and the square or compact forms. Dr. Cogswell emphasizes that a clear understanding of these two basic facial forms will assist in the development of a surprising ability to anticipate many surgical problems even prior to roentgenographic verification. Of particular interest are those areas where the prevalence of impacted teeth is most common, namely the mandibular third molar area, and the relative involvement of the anterior border of the ramus.

Since removal of impacted mandibular third molars is a surgical problem which confronts most operators at one time or another, a careful study of this particular part can be most profitable.

The slides and text classify each type of ramus along with each type of impaction. The classification of each is clearly demonstrated by roentgenograms, dried specimens, models and photographs, all giving a valid and realistic view. Step by step surgical procedures for each type of impaction completes the series.

It is not intended that one should try to master all of the surgical procedures portrayed in the kit at one time. The selection and careful study of one particular phase will give the operator a practical system of approach and produce rewarding results. Any attempt to absorb too large a portion tends to defeat the system of training by observation of the illustrations. However, if used judiciously, the material covered by the series should enhance the skill of any operator to a worthwhile degree.

Editor's Note:

Dental officers are encouraged to make full use of this unique, comprehensive, compact training aid which is available in each dental unit.

Dr. Cogswell is an eminent oral surgeon, an experienced teacher and an originator of the principle of controlled tooth division. He is director of the Cogswell Oral Surgery course at ENT Air Force Base, Colorado Springs, U.S.A. A number of RCDC officers have attended this excellent course through the kind auspices of the United States Air Force Dental Corps.

An illustrated article on the "Cogswell Technique of Controlled Tooth Division for the Removal of the Impacted Third Molar" by Major E.J. Small appeared in the RCDC Quarterly Vol 5 Number 2 July 1964.

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Just as undergraduate study supplies the necessary number of new dentists, so graduate work must supply that necessary new life, thought and inspiration without which our profession cannot survive. The future of our profession depends on graduate work. It is the only means by which we shall go forward. We cannot expect the dental student to advance the science of dentistry. Nor can we believe that our profession will be greatly helped by the practitioner who is content to gather up the crumbs of progress.

— Written 40 years ago by Walter H. Wright, former Dean of the College of Dentistry, New York University.

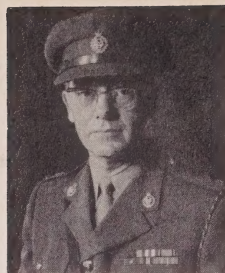
In defence of the general practitioner__

"Those who comprehend the whole in general are in no way secondary to those who comprehend the part in particular".

— Editorial, British Dental Journal, 3 August 1965

DENTAL TREATMENT STUDY - PATIENT PARTICIPATION

W.H. Harrington, CD, DDS, DDPH



Major W.H. Harrington

In May 1965 a study was conducted to determine the extent to which servicemen avail themselves of dental treatment provided through RCDC facilities. The aim of the study was to obtain certain statistics which might serve as a guide in future submissions and to provide a basis on which the value of the RCDC dental health program might be assessed.

Commanding Officers of RCDC units were requested to select clinics in which a sampling of dental records could be reviewed and particulars recorded according to specific definitions and principles.

Nineteen RCDC clinics representing a total patient strength of 46,460 service personnel, i.e. approximately 38% of the total strength of the Canadian Forces, were selected for the study. Of these 46,460 patients the dental records of 3421 were examined and the findings tabulated as follows:

Category of dental treatment	Number of Selected Charts	Percentage
Regular Treatment	1105	32.3
Intermittent Treatment	1075	31.42
Emergency Treatment	745	21.78
Nil Treatment	496	14.5
Total	3421	100.00

In conducting such a survey it was realized that the information requested was of a general nature. It only provided a beginning for future surveys of a more sophisticated type. The Commanding Officers of Dental Units reported that loss of clinical time required by dental officers to complete the pro-forma was not significant.

It would appear from this study that a total of 85.5% of the RCDC patient commitment receive dental coverage of a varying degree and that 63.72% receive good or adequate dental treatment. For this relatively high percentage of personnel receiving dental coverage it should be remembered that the dental service is free, the age group specific, that is, ranging from the late teenage to middle-age and these personnel are a "captive patient" group. Undoubtedly, the COs and DOs have shown an unknown degree of bias in the selection of clinics and recording of data respectively. Had the present Dental Record DND 422 been in use earlier than mid-1962, it is conceivable and even likely that the findings disclosed by this study would have been quite different. However, it is anticipated that in future studies, the continuing RCDC dental health education programme will reflect a significant improvement in patient participation, especially in the regular and intermittent treatment categories.

Corps Conference

The Command Dental Officers and Commanding Officers of the RCDC Regular Force gathered at the Canadian Forces Headquarters, Ottawa, Ontario for the 16th Annual Director General of Dental Services and Unit Commanders' Conference held November 21st to 24th, 1965.

On the evening of November 23rd, officers participating in the Conference and officers from the Ottawa area attended a Formal Mess Dinner at RCDC Station Uplands to celebrate the 50th Anniversary of the Royal Canadian Dental Corps. The guest speaker was Vice Admiral K.L. Dyer, Chief of Personnel for the Canadian Forces, who reviewed the Corps History and spoke in general terms on integration of the Forces.



Front Row L to R - Col GC Evans; Brig KM Baird; Cmdre SE Paddon; Col BP Kearney; Col LG Craigie; Col GR Covey.

Back Row L to R - Col CM Cornish; Lt Col WR Thompson; Lt Col SG Bagnall; Lt Col G MacDougall; Lt Col AW Brusso; Lt Col WW Anglin; Col AT Roger; Capt CA Casterton; Col RHG Cunningham; Lt Col LA Richardson; Maj JW Fletcher; Lt Col JC Brick; Lt Col WH Carter; Lt MB Fisk; Maj WH Harrington; Capt E Clark; Maj DH Newall (US Army DC).

Corps Association Meets at Ottawa

Brigadier K.M. Baird, the Director General of Dental Services for the Canadian Forces, and Colonel B.P. Kearney, the Deputy Director, attended the Seventeenth Annual Meeting of the Royal Canadian Dental Corps Association held in Ottawa on December 3rd and 4th, 1965. At this meeting the following slate of officers was elected:

Past President	- Lt Col AZ Henry, Toronto, Ont.
President	- Lt Col MJ Snidal, Winnipeg, Man.
President-Elect	- Lt Col AJ Harris, London, Ont.
1st Vice-President	- Lt Col JE Hallet, Halifax, N.S.
2nd Vice-President	- Lt Col JB Lachance, Quebec, Que.
Secretary	- Col CBH Climo, Ottawa, Ont.
Treasurer	- Col CE Woods, Ottawa, Ont.

Fluoridation of Defence Establishments Water Supplies

The Minister of National Defence has now approved the recommendation that water for human consumption in Defence Establishments not already provided with naturally or artificially fluoridated water be fluoridated to a concentration of one part fluoride per million. He has further directed that the necessary action be taken to implement this policy in the applicable Defence Establishments.

RCDC Curling

The Fourth Annual RCDC Bonspiel will be held at Camp Borden 18-19 Feb 66.

All Regular, Militia and retired RCDC(R) personnel and RCAF Airwomen employed with the RCDC(R) are eligible to enter. The Bonspiel will be run on a Three Event system with the first draw at 0900 hrs 18 Feb 66. Details concerning the draw will be contained in the instruction booklet which will be issued on arrival.

Curling brooms will be available without charge; however it is recommended that if possible personnel bring their own brooms.

A presentation dinner will be held on Saturday evening. Refreshments will be available at the Curling Club throughout the Bonspiel.



This handsome trophy was donated by the WOs and Sr NCOs of the RCDC for the Third Event of the Annual RCDC Bonspiel. Generous subscriptions totalling approximately \$ 100.00 made the purchase of this trophy possible. It is presently held at the RCDC School and will be seen by all who attend the forthcoming Bonspiel.

Directorate

Brigadier K.M. Baird attended the annual meeting of the American Dental Association at Las Vegas, Nevada, November 8-12, 1965. Also attending from the RCDC were Major P.S. Sills and Major A.G. Taylor both at present stationed in Washington, DC with the US Army Dental Corps.

Colonel Kearney appointed Queen's Honourary Dental Surgeon

Canadian Forces Headquarters recently announced that Her Majesty Queen Elizabeth II has graciously approved the appointment of Colonel B.P. Kearney, MBE, CD, P, DDS, FICD, as Queen's Honourary Dental Surgeon. The appointment is an honour granted to selected dental officers in recognition of distinguished service. It is held by officers of the Regular Force for "tenure of office" and by officers of the Militia for a period of two years.

Colonel B.P. Kearney and Colonel R.H.G. Cunningham, the Command Dental Officer, Eastern Command, Halifax, N.S. inspected Royal Canadian Dental Corps facilities and interviewed Corps personnel throughout the Maritimes October 11 to 19th, 1965.

Major W.H. Harrington, Canadian Forces Headquarters, Ottawa, Ont represented the Director General of Dental Services at the Montreal Dental Club Convention, Montreal, Que, October 25 to 27, 1965. At this time a new exhibit presenting the varied roles of Auxiliary Dental Personnel in the Royal Canadian Dental Corps was displayed.

Christmas Party

The annual Christmas Party was held on 14 Dec 65 at the Senior NCOs Mess at HMCS Carleton and was attended by RCDC members and civilian personnel within the Ottawa area.

11 Dent Coy

Accommodation

11 Coy reports that renovations to the RCAF Station Holberg clinic are progressing favourably and that a full time dental officer will be stationed there by the end of Jan 66.

Sports

The Sgt's Mess Curling Spiel was held on 4-5 Dec 65 at RCAF Station Cold Lake. Sgt Fox A was on the winning rink in the second event and Ssgt Shand on the rink that captured third event.

Sgt W.B. Gilbert is the owner, for the next year, of the Butterworth Trophy for "Low Gross" in the BC Area HQ Golf Tournament.

RCDC personnel of the Edmonton Area held an abbreviated bonspiel in conjunction with their annual Christmas party--no doubt practicing for the forthcoming Annual RCDC Bonspiel. Some people will stoop to anything!

12 Dent Coy

Accommodation

HQ and QM Stores are in the throes of acquiring and moving to new accommodation, a step necessitated by the activation of Maritime Command. QM has already occupied a Butler building at RCAF Station Gorsebrook and it is

anticipated that suitable accommodation located near by will become available for HQ later this year.

Sports

A program of physical training - 40 minutes per week - is being organized by the Halifax Garrison. It is planned that dental personnel in Halifax take part.

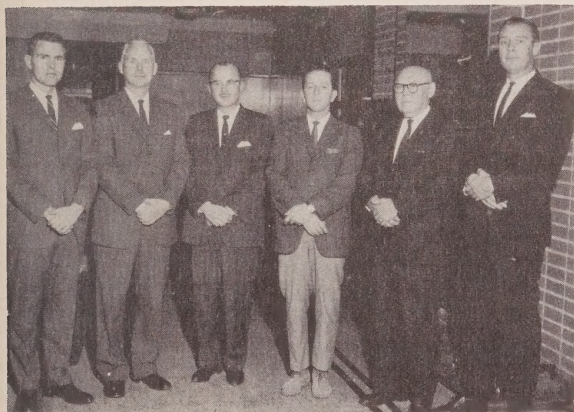
The deer hunting enthusiasts in 12 Coy got their quota this Fall with one to each of the following: Sgt WD Chase, Cpl DJ Davies, Cpl DF Middleton, Capt JF Mullins and WO1 DD Robertson. (We hope that it was just one each.)

13 Dent Coy

Personnel

13 Coy welcomed the appointment of Lt Col RE Brown to the Part V vacancy in No 21 Clinic London, on his retirement from the RCDC in October.

The officers of No 2 Clinic at RCAF Station Clinton were hosts to the Wingham and District Dental Society on 9 November. Clinical presentations were made by each dental officer of No 2 Clinic and by the D Tech Clin and D Tech Lab. The non-service members in the photo form the executive of the Society.



From L to R:

Capt RWR Horn, Col AT Roger,
Dr P Palmer, Dr J Buljabasic,
Dr JA Munn and (with the look
of distress) Maj DJ Carmichael

Sports

Major EMC Franklin was a member of an RCAF rink which scored an "eight-ender" during an invitational bonspiel at RCAF Station Centralia on 28 Oct 65.

Special Events

The Commanding Officer and four Trenton area dental officers attended a recent meeting of the Bay of Quinte Dental Society held at Campbellford. The guest speaker was Dr P Smylski, head of the Department of Oral Surgery, University of Toronto.

Capt George Moore's retirement from the RCDC becomes effective at the end of January, after a period of over 25 years service with various units in Canada and overseas. A mixed party is planned for the evening of 21 Jan 66 in the Social Centre at RCAF Station Trenton to honour the Moores on this occasion and wish them well for the future.

14 Dent Coy

Accommodation

No 2 Dental Clinic will be moved from the Training Command site to the RCAF Station Area in Winnipeg. Work commenced 1 Dec 65 on the conversion of a barrack block which will provide a spacious 8-chair clinic.

Meetings

Lt Col Anglin, Major C Brown and Capt RT Mori attended a meeting of the Winnipeg Dental Society on 25 Oct 65. Dr SS Stahl, Associate Professor, Department of Periodontia and Oral Medicine at New York University College of Dentistry discussed "An Appraisal of Current Periodontal Therapy".

Farewell Party

On 1 Dec, Members of 14 Coy in the Winnipeg Area met at the Curling Club to say good-bye to Capt Lionel Jacob prior to his departure to No 4 Personnel Depot, St Jean, PQ for release. Lionel has served in the Canadian Army for approximately twenty-five years. He must be considered as one of the individuals who seem to be a vanishing breed in the Armed Forces in general. It is presumed that he will be settling in La Belle Province and best wishes are extended to him.

15 Dent Coy

Accommodation

Construction has been started on the new part-time clinic at RCAF Station Val D'Or.

Meetings

Members of 15 Coy who attended the Fall Clinic of the Montreal Dental Club included Col Cornish, Lt Col Charman, Major Bunston and Capt Laporte.

Col Cornish presented RCDC orientation lectures to 1st year students at both McGill and the University of Montreal to stimulate interest in the DOSP.

Sports

Major HG Bunston was recently awarded the Bronze Medallion on completion of a Life Saving Swim Course held at RCAF Station Goose Bay.

Ice-fishing at Goose Bay has been excellent this year. The dental "shack" was put onto the ice during the second week of December and members of the staff are enjoying an abundance of cod, smelt and trout.

Special Events

RCDC officers of the Greater Montreal Area hosted the other ranks at a Christmas Party at RCAF Station St Hubert - with Col Cornish as "Head Chef" and Maj Sugars "Chief Organizer".

Training



Senior NCO Course, RCDC School, Oct - Nov 1965

Rear Row - LSgts King HC, Shore JW, McKinnon HJ; ASgt Johnson RB; LSgts Hall MJ, Neil RA, Deloughery TJ, McDonald RW.

Front Row - Lt Col Prothro, CI, Col GR Covey, Comdt, Lt Lobb EN, Crse Administrator.

Cpl Fraser completed the four-week course at CFMSTC in First Aid Instructing. He was given a glowing report and steps are being taken to obtain his Voucher Qualification from the St. Johns Ambulance.

Visitors to the RCDC School

His Excellency JS Malecala, High Commissioner for Tanzania, and Mr. Kishoska, Tanzania Adviser on Student Affairs, visited the School in October and were given a tour of the facilities.

In November, Brigadier CM Gurner, DDGMS of the Royal Australian Army Medical Corps, toured the School and was briefed on the RCDC training programme.

Sports

On 8 Dec the Barrie Chamber of Commerce were hosts for a bonspiel with Camp Borden Army and RCAF rinks. Lt Col Frotheroe's rink (with Col Covey as second) won the bonspiel when the skip's "cold draw" broke a tie, securing the trophy for the Army.

35 Fd Dent Unit

Training

Majors Bourget, Gaudet and Kamachi attended a clinical symposium on Crown and Bridge Technique presented at the 767 US Medical Detachment (Den Svc) Verdun.

Sports

Major "Rocket" Gaudet reports that he has retired from active participation in hockey at No 1 Wing but is keeping in condition with 5BX.

Sgt and Mrs Jennings continued their winning streak in Christmas Turkey "roll-offs." Between them, they have won a turkey every year for the past five. The Jennings are entered in three bowling leagues this year. He bowls in the Inter-section League, Mrs "J" in the Ladies League, and for "togetherness", they both bowl in the Mixed League.

Special Events

Dr Callenius was feted at a Mess Dinner on 2 Dec at 1 Air Div HQ Officers' Mess on his departure to "Civvy Street". This was one of several functions held to honour Dr Callenius, a German dentist who has rendered dental treatment to the dependants of Canadian Service personnel at 1 Air Div HQ for the past eight years. He is setting up a dental practice near Stuttgart, Germany.

4 Fd Dent Coy

Conferences

The monthly professional meeting was sponsored by 4 Fd Dent Coy and was held in the Canadian Officers' Club on 4 Nov. Major Begin chaired the meeting which viewed and discussed professional films on complete dentures, the infra-boney pocket and root resection. The meeting terminated with a dinner at the Club.

December's professional meeting was held in 4 Fd Sqn RCE Officers' Mess. Capt Davis, USDC, spoke on the US Army Preventive Dentistry Program; Lt Col Richardson on Dental Clinical Auxiliaries; and Major Leonard, RADC, on Interpretation of Intra Oral Radiographs of Impacted Lower Third Molars.

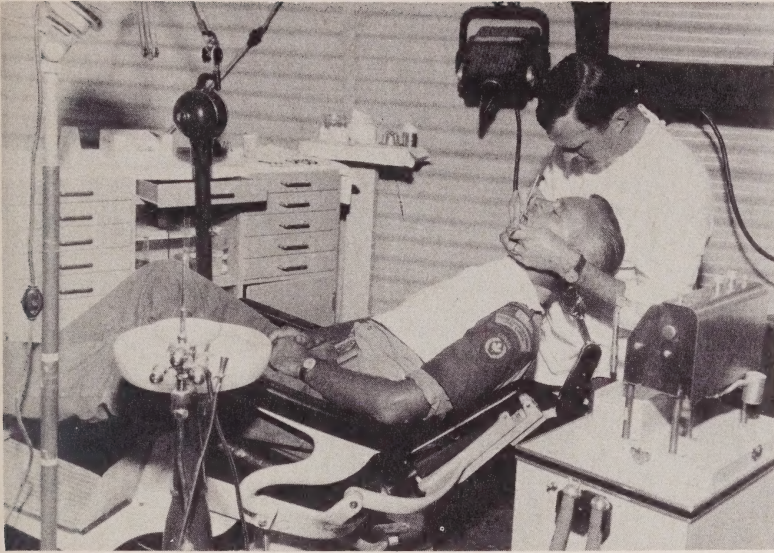
The dental NCO study group met on 15 Dec in the 4 OFP Sgts' Mess, Fort Chambly. Their meeting was chaired by WO2 Abernethy and the role of the various dental tradesmen was discussed.

Accommodation

A two-bedroom apartment type PMQ in each of the PMQ areas of Soest, Hemer and Werl is being converted into a dental clinic. These clinics will be used primarily to treat dependants in 4 CIBG but will also provide the necessary garrison services to rear parties when brigade units are on exercises.

Sports

A rink skipped by Lt Col Richardson were runners-up in the main event of the Fort York Yuletide Bonspiel.



Capt PS Wade working on a patient in the clinic at HQ Canadian Contingent, UN Cyprus. Capt Wade returned to Canada in Oct and was replaced by Capt H Griesbach.

Sports

Cpl Forward participated as a member of the 2nd Cdn Gds basket-ball team against the "Dhekelia All-Stars". Unfortunately, the Canadians met honourable defeat.

Leave

Clinic personnel enjoy touring the island in spare time and are impressed by its rugged beauty. A trip to the ruins of Salamis is well worth while.

Capt Griesbach took all of his Special Leave and visited France and Germany.

Cpls Forward and Mandrusiak proceeded to Beirut on one week's Special Leave.

CBU (UNEF)

Special Events

A unit "farewell party" for Ssgt Sharpee was held in conjunction with a charcoal broiled steak dinner.

Capt Chemesky, playing his guitar, sang several "Folk Songs" at a UNEF Amateur Show held in the El Nasser Theatre, Gaza.

All dental personnel attended a Christmas dinner and party sponsored by "A" Sqn VIII Cdn Hussars. The officers and Sr NCOs assisted in serving the ORs.

Sports

Capt Chernesky as a member of the Camp Rafah All-Star baseball team went to Cairo where they played and won two games against employees of the American Embassy.

Several members of the unit participated in the UNEF Polar Bear Swim in the Mediterrarean on Christmas Day and became qualified members of that select club. (The uninitiated should be informed that the water in the "MED" at that time and in that location isn't as cold as it is in the Atlantic off the coast of Nova Scotia in mid-summer.)

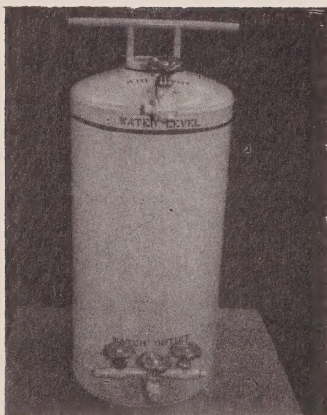
Leave

Members of the unit took advantage of their location to go on interesting leave trips during the quarter:

- Capt Chernesky to Beirut and Cairo
- Capt Nattress on an extensive tour to Athens, Rome, Madrid and Paris
- Ssgt Raymond to Cairo
- Sgt Beattie to Jerusalem for Christmas
- and Major Roy, Cpl MacLean and Cpl McKay back to Canada for 30 days leave over the Christmas period on a chartered flight.

1 Dent Eqpt Dep

Equipment



The 10 gallon container shown in the photo was devised by Lt Church as a resevoir of fresh water in sufficient quantity and pressure to supply the 3 airotors and 3 thermo water syringes in the CEU(UNEF) Clinic in Rafah, Egypt. Before this method was used, the main water supply to the clinic was neither considered suitable for drinking nor for use in dental operating procedures. Then too, the water system lacked the pressure required to permit the water to be used as a coolant with the airotors and water syringes. The water pressure is maintained by a compressed air supply from the air compressor in the clinic and controlled by a regulator and shut-off valve located on the top of the tank.

Sports

Major JW Fletcher is to be commended for winning the Men's Senior Bowling Tournament in the Petawawa area. This victory was sweetened even more when the prize of \$75.00 was presented.

Ssgt RH Palmer was a member of the rink that won the Camp Petawawa Men's Open Curling Bonspiel held in November.

Meetings

The monthly seminar for all dental officers was held at NDMC on 5 Nov
The following papers were presented:

- Hospital procedures as they apply to NDMC - Maj JY Turcotte
- Dental aspects of sub-acute bacterial endocarditis - Lt Col WR Thompson
- Anti-coagulant cardiac therapy - W/C Fitzgibbon

The dental assistants and dental technicians (clinical) held a meeting on 5 Nov also. WO2 Feduik spoke on "Dental ethics pertaining to auxiliary personnel", and Sgt Duve spoke on "maintenance of dental equipment".

Capt Weeks conducted a seminar for the officers of No 1 Dental Detachment on Oral Cytology on 3 Dec.

Sports

The officers of No 1 Dental Detachment are taking the business of keeping physically fit seriously. Lt Col Carter, Maj Skinner, Maj Gazo, Capt Adams and Capt Weeks have started a physical fitness programme during noon hours at the YMCA. (Just shows what Bill Carter's determination to lose weight can do)

WO2 Sadler (dental technician clinical) was member of the RCAF Station Rockcliffe rink who were "runners-up" in the City of Ottawa Bink's Bonspiel.

Professional Training

Royal College of Surgeons - London, England - 1 Nov-21 Jan 66

Maj AL Kelland, Maj LA Reynolds

University of Michigan - Ann Arbor, Michigan

Capt HW Brogan - Periodontics - 29 Nov-10 Dec 65

Maj LE Kelly - Oral Surgery - 6 Dec-17 Dec 65

US Naval Dental School - Bethesda, Maryland

Maj WR Collier - Oral Surgery - 10 Jan-14 Jan 66

Maj EW Gazo - Oral Surgery - 17 Jan- 4 Mar 66

Maj GT Crossman - Complete Dentures - 31 Jan- 4 Feb 66

ENT Air Force Base - Colorado Springs - Colorado, USA

Maj JJY Turcotte - Oral Surgery - 17 Jan-28 Jan 66

The Doctors Hospital - Toronto, Ontario

Maj AG Andrews - Oral Surgery - 25 Oct 65 - 10 Jan 66

Training

Training with Industry - Ritter Training School - Rochester, NY - 6-17 Dec 65
WO1 Carpenter

RCDC School - Camp Borden, Ont - Dental Assistant Gp 1 Course - 8 Nov-17 Dec 65
Ptes AF Abfalter, ML Allen, F Bosch, JF Boulanger, IA Braslins, GB Bristow, HK Gapmann, OIA Hatcher, NJ Hope, A Jack, JG Labrosse, JA Larouche, RG O'Dell, WG Palmes, DW Roy, RF Vance JA Wesley

Dental Technician Laboratory Gp 3 Course - 10 Jan-18 Feb 66
Sgts ER Borden, H Chamberlain; Cpls DJ Davies, CVS Forsythe, DH Hardy, DC Hughes, A Pink

Technical Dental Therapist - 10 Jan-29 Apr 66
WO2 JH Sadler; Ssgt RF Matheson

Dental Technician Clinical - 10 Jan-24 June 66
Sgts JRA DeBlois, JG MacDonald, PD Peterson; Asgts TJ Deloughery, HC King, RA Neill; Mrs TE Aubin

No 1 Dent Eqpt Dep - Camp Petawawa, Ont - Dent Eqpt Tech Gp 3 Course - 10 Jan-1 Apr 66
Asgt EA Duve

Dental Equipment Technician Gp 2 Course - 10 Jan-22 Apr 66
Cpl BA Green

Junior NCO Course
Cpls JR Ritchie, IA Russell, JL Violette

RCASC School - Clerk Adm Course Gp 3 - 6 Oct-3 Dec 65
Cpl RS Walker

Promotions

To Capt - HF Doyle, EL Proudfoot
To Sgt - Deloughery TJ, Neill RA, King HC Duve EA
To Cpl - Cormier JD, Challenger GN, Ritchie JR, Schultz EJ, Hogan JAP, James RK, Kalmet H, McDonald GK, Ayerst HE, George HB, Atherton JA, McEwen JB, Clark JD, Violette JL, Danyluck RW, Porteous GW, Hagglund RN, Hansen KV, Girdleston TV, Russell IA, Audet JA, Olinik MG, Sharp NB.

Welcome to the Corps

Ptes - Beauchamp JNC, Baxter HE, Clint JE, Cloutier JRA, Delmage RK, Feeney DC, Kilgrain BC, Lapointe JOM, Larouche JA, McIntosh WR, Mehler PJ, Morin EAJ, Mullin RW, Osborne RE, Renwick WH, Scheer RB, Shave CC, Walker JM.

Retirements and Releases

Cpts JAL Jacob, GJ Moore; Ssgt Nixon AH; Sgts Boulanger JIJ, McGunigal GE; Cpls Gallivan JJ, Herrett TJ, Lachance C; Pte Charlebois E.

Vital Statistics

Births

Son - Capt & Mrs Boston; Capt & Mrs Kricken; WO2 & Mrs Pelletier; Capt & Mrs Rausch; Capt & Mrs Taylor; Cpl & Mrs Thorburn.

Daughter - Cpl & Mrs Harmer; Capt & Mrs Laporte; Capt & Mrs Walls.

Marriages

Cpl JAL Boulianne to Miss Sandra Prouty; Capt RH Crowson to Miss Carol Ann Johnson; Capt L Dombowsky to Mrs Marie Schneider; Cpl JF Giroux to Miss Louise Plante; Sgt RB Johnson to Miss Gail Marie Cooper; Cpl JPA Lambert to Miss Lynn Hodge; Capt JD McCallum to F/O (N/S) Anne Heykin; Cpl G Porteous to Miss Carol Humphries; Law ND Scarborough to Lac AE Bennett.

Deaths

Deepest Sympathy is extended to Cpl HH Nogler on the death of his wife.

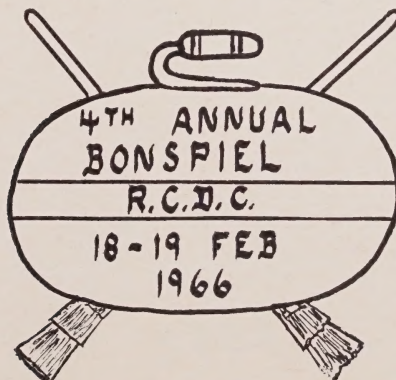
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Editor's Note

Photographs for the Quarterly

RCDC personnel are encouraged to forward photographs to DGDS (attention RCDC Quarterly Editorial Board) for possible publication in the Unit News Section of the Quarterly. The receipt of old photographs which may help to complete records of the history of units of the Corps will also be appreciated. If possible, photographs should be "black and white" with glossy finish. On request, photographs submitted to DGDS will be returned to the donor.

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